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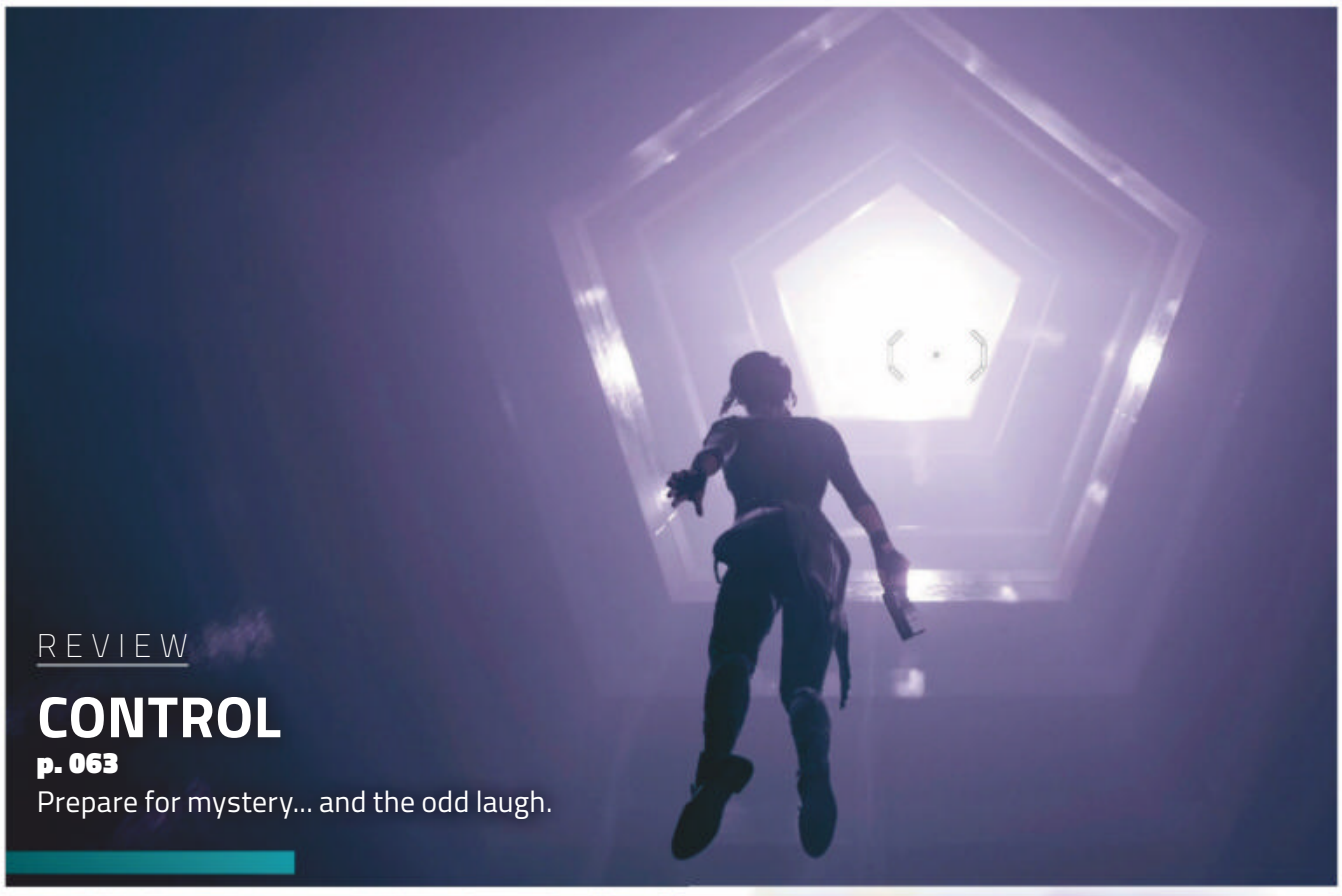
ON THE COVER

CYBERPUNK 2077

p. 022

We talk ray-tracing, hacking, combat options and talk to the man who started it all - Mike Pondsmith.



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PREVIEW

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Is it more than just Fallout in space?

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AGAIN?!

Yes, yes, we've done ANOTHER feature on Cyberpunk 2077. And you know what, I don't even feel bad. When the local publisher pitched the peice, I admit I was a little... We've kinda been here already. So, I figured, what have I got to lose.

"Can I talk to Mike Pondsmith?" I asked.

"Yeah, sure," was the response, and who am I to argue with that! If you've been following the last few issues you know I am a mad keen fan of the man's work on tabletop, so... here we are. And you get a VERY shiny special cover to boot!

But that's just one small part of the excellent preview content we have for you this issue. We've got a brave new contender in the 4X historical genre, Humankind, and a whole new Total War Saga that will have Brad Pitt and Sean Bean fans very happy. We take a close look at developer Motion Twin's next game, and we look to the skies with Kerbal Space Program 2.

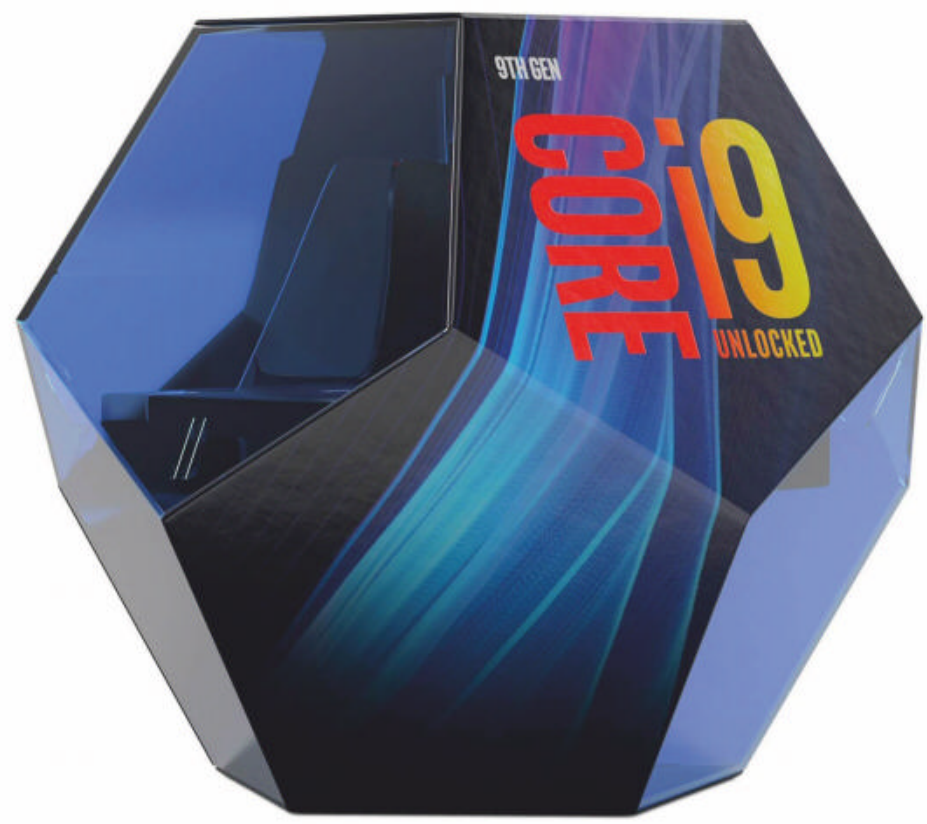
And that's just a taste. We hope you enjoy the issue as much as we loved putting it together.

David Hollingworth
Editor

"Immortality is THERE! Take it! You know, once the map loads, I guess..."

PCPP | Game News

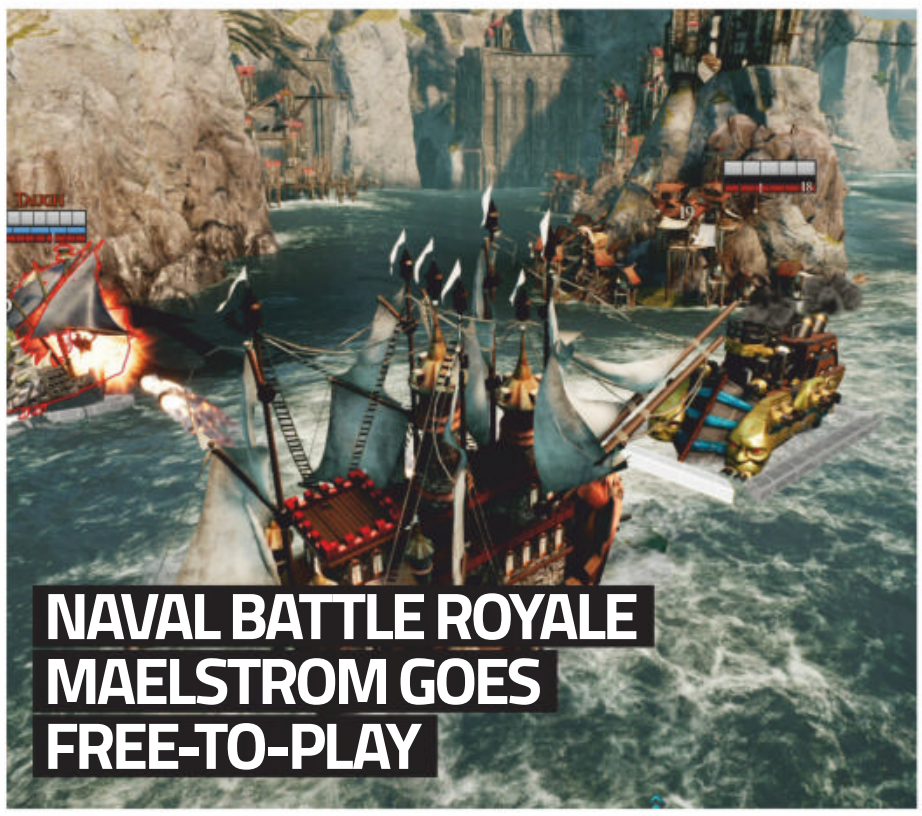
THE UPCOMING CORE I9-9900KS WILL REQUIRE SERIOUS COOLING TO MAXIMISE PERFORMANCE



Early indications are that it will use 127W, and that might only be for 4.0GHz.

Intel's upcoming Core i9-9900KS was first revealed just before Computex. It's not on sale yet, but it's coming in this month, and it aims to be the new king of gaming CPUs – price still unknown. Various other specs were also unknown, like the TDP, but Tom's Hardware discovered updated Asus BIOS information that indicates the base TDP (Thermal Design Power) will be 127W. If correct, that's the highest TDP for a mainstream consumer CPU from Intel since the days of the Pentium D (which hit 130W for some models).

There are all sorts of disclaimers, of course. For example, just because a BIOS lists a TDP target of 127W doesn't mean that's Intel's official spec. It also doesn't mean the 9900KS will be limited to 127W – under heavy workloads, it's clear that the "95W" Core i9-9900K already exceeds that mark, depending on the motherboard BIOS. That's because even though the official guaranteed clockspeed for the 9900K is only 3.6GHz, many Z390 enthusiast boards will happily run all eight cores at 4.7GHz, TDP be damned.



NAVAL BATTLE ROYALE MAELSTROM GOES FREE-TO-PLAY

The game of fantasy pirates is still in Early Access.

Remember Maelstrom, the last-ship-standing game of naval combat that entered Early Access last year? The one where you can be captain of an orc ship pulled by giant sharks, and the shrinking battle-royale circle is a section of Dead Water hiding a colossal sea monster that will just straight-up eat you? Back when it cost $20, our own Christopher Livingston said, "The toughest part of Maelstrom, from what I've played, has been getting a full match." When you could get a match it was pretty fun swinging around whirlpools launching broadsides at your enemies, and going free-to-play will presumably give player numbers a bump.

"All gameplay and progress can be unlocked by playing the game for free", say developers Gunpowder Games. "No additional purchases are needed to enjoy the game to its fullest extent. There are no ways to purchase a competitive advantage in game."

DOTA 2 IS BANNING SOME PLAYERS UNTIL 2038

But it's really permanent.

Dota 2 is getting ready for the next ranked season, kicking off tomorrow, which also means getting rid of some of the game's naughtier players. Valve announced that it would be banning people in various waves, which started yesterday. What it didn't mention was the length of the bans, and some players are now discovering their account is in jail for up to 19 years.

The Steam forum and subreddit are full of people complaining about getting banned for nearly two decades, and even more people revelling in their comeuppance. It's an oddly specific date, but Valve didn't choose it. January 19, 2038 is the latest date that can be set using 32-bit time representation, it turns out, so if you've received a 19-year ban, you're probably banned forever.

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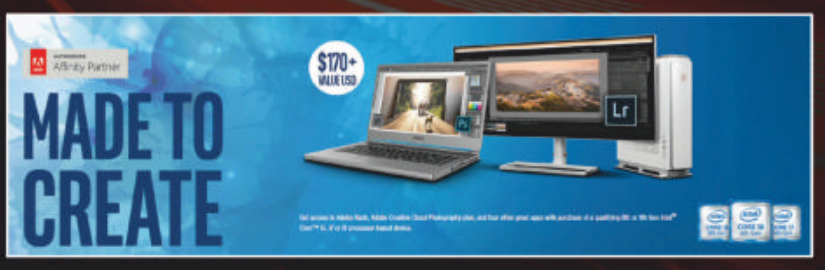

Let's Put the Future Behind Us

The new Borderlands has been accused of being too backwards-looking. But is that really such a bad thing?

Borderlands 3 is finally out (though not quite in time for a review this issue (-Ed), and some people aren't happy. There have been concerns that the use of Denuvo DRM has led to unnecessarily bloated install sizes. There have also been reports that said DRM is less than 100% effective, with some people getting refunds from the Epic Games Store only to find that the game was still sitting there on their C: drives, and still quite playable.

Then of course there's the ongoing legal stoush between Gearbox founder Randy Pitchford and former business associate Wade Callender. According to Callender's 3rd Amended Petition against Pitchford, the entrepreneur and amateur magician's alleged misdeeds include using creative accounting practices to misappropriate US$12 million earmarked for employee bonuses, and maliciously cancelling the Callender family's health insurance and then taunting him about it over the phone:

"Because the Callender family received no notice of this cancellation from Gearbox, it was learned only when Callender's wife was unable to obtain her medications from her doctor. During this time, Pitchford dispatched a personal text message to Callender's new phone number informing Callender to 'unbite himself.'"

Quite disturbing allegations, if true. But the loudest complaints have been about the sense of humour in Borderlands 3. That the narrative is nothing but a tone-deaf meme-fest, regurgitating internet humour in lieu of presenting anything genuinely incisive or original. That after a decade of success, the entire franchise is still utterly juvenile. Why can't Borderlands grow up?

Why? Because it's unreasonable to expect that a franchise aimed at a specific demographic should 'grow up' with any given cohort of fans. Why don't the Powerpuff girls swear? Why doesn't GI Joe examine atrocities committed by Mexican drug cartels? Why doesn't Microsoft Minesweeper graphically depict the grievous injuries inflicted by land mines? To ask such questions is to answer them – because it would be utterly absurd.

Borderlands is aimed at 13-year-olds, and it always will be. If you can't handle that it says more about you than about the game. Besides, there are loads of grown men who quite like living in the past. They can't get enough of it.

JAMES COTTEE
Always looks forwards, not backwards. He may or may not be twirling, twirling, twirling toward freedom, however.

Borderlands 3: virtuoso game design or just designed to be the same as it ever was?

Consider the controversial programmer Markus 'Notch' Persson. His current circumstance is the very definition of irony: ever since selling Minecraft and becoming a billionaire his life has had unlimited potential and no clear goals. He appears to be dividing his time equally between making ever-more complicated integrated circuits in Factorio and creating his own custom dungeon-crawling engine in Javascript.

At the risk of playing armchair psychologist it seems he's trying to craft his own spiritual successor to Dungeon Master, the 1985 RPG that had such a huge impact on his conception of what a video game should be.

Then there's David Murray, known on YouTube as 'The 8-Bit Guy'. He's currently involved in a massive undertaking: creating his own custom design for a single board computer. Why go to so much trouble, when there's already perfectly good solutions available like the Arduino and the Raspberry Pi? Well, the problem is that those systems encourage you to use modern interpreted languages like Python. What Murray really wants is a system with a directly-addressable memory space on which you can run old-fashioned assembly and BASIC.

Sure, the Arduino and the Raspberry Pi work perfectly, are used by millions, and have ample amounts of software and technical support available via vast user networks. But they don't recreate the feeling of being a six-year-old and unwrapping a brand new Vic-20 on Christmas morning. It's just not the same! So by creating the 'Commander X16' Murray and his collaborators hope to keep the dream of 8-bit Commodore computing alive.

After years of denying that there was any demand for an old-school World of Warcraft experience, Blizzard finally relented and released WoW Classic, to massive success. And don't forget the thousands of aging Wing Commander fans that have given over US$230 million to Chris Roberts. The latest rumours suggest that the ongoing lawsuit with Crytek will force the Star Citizen team to change engines yet again, this time to Unreal Engine 4. Eight years in development hell, and the dream just won't die.

You can make the case that wallowing in nostalgia is self-indulgent, delusional, close-minded, and daft. You can make that case, but you'll be ignored. People love trying to live in the past. There's just no stopping them. So why not profit from their obsession? By this metric, Randy Pitchford and Chris Roberts are among the smartest game developers on the planet... PC

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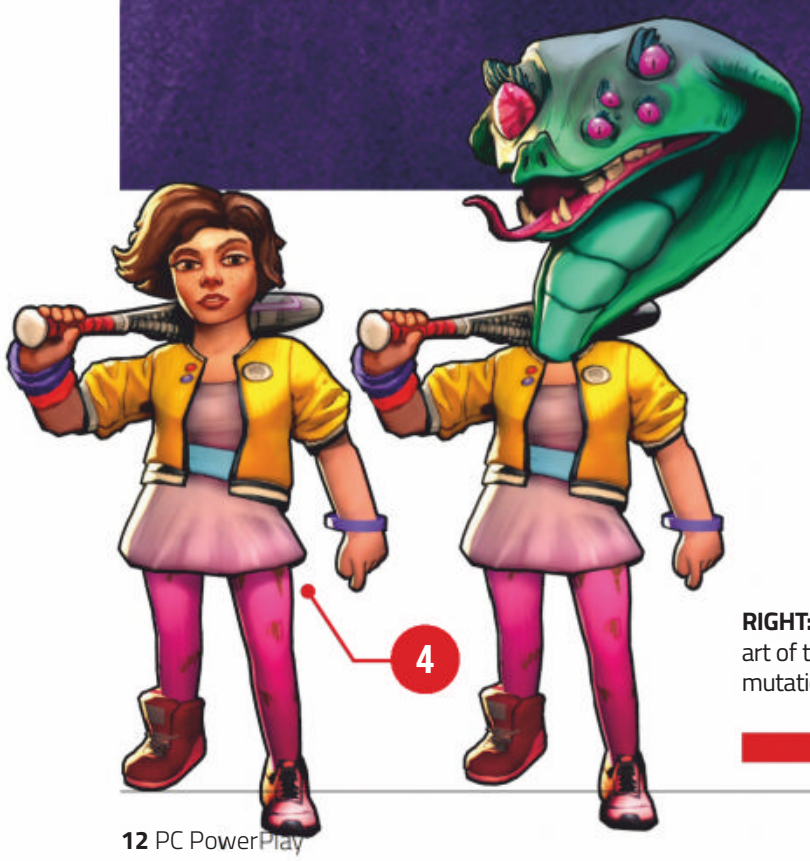
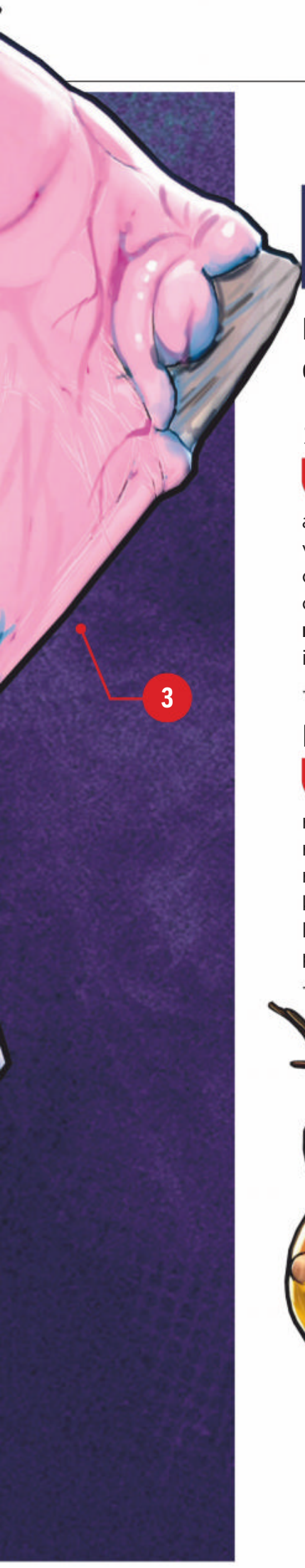


RIGHT: Early concept art of the modular mutation system.



Free Radicals

Double Fine project lead Lee Petty on the wild and wonderful mutations of '80s-inspired roguelike. **ROBIN VALENTINE**

SPARE CHANGE

1 "Mutations kind of go hand-in-hand with an apocalypatic setting, I'm always very interested in a player character whose identity is shifting over the course of the game, and mutation seemed a really interesting way to explore that."

BEYOND HUMAN

2 "One of one of the early things we said was, it was really interesting to see that as the world is somehow getting a little bit better the player character, although getting more powerful, is becoming something less than human."

LIVE A LITTLE

3 "You're sort of adapting to survive in this environment. And we wanted the mutations themselves to kind of be surprising as well, thematically and visually, so that maybe how to get the most out of them wasn't all on the surface."

MORPH SUIT

4 "I liked the idea that the characters themselves are relatively neutral. They don't have really crazy silhouettes. So we left room for the mutations to really kind of define the character, at least visually, as the game progresses."

MONSTER MUSH

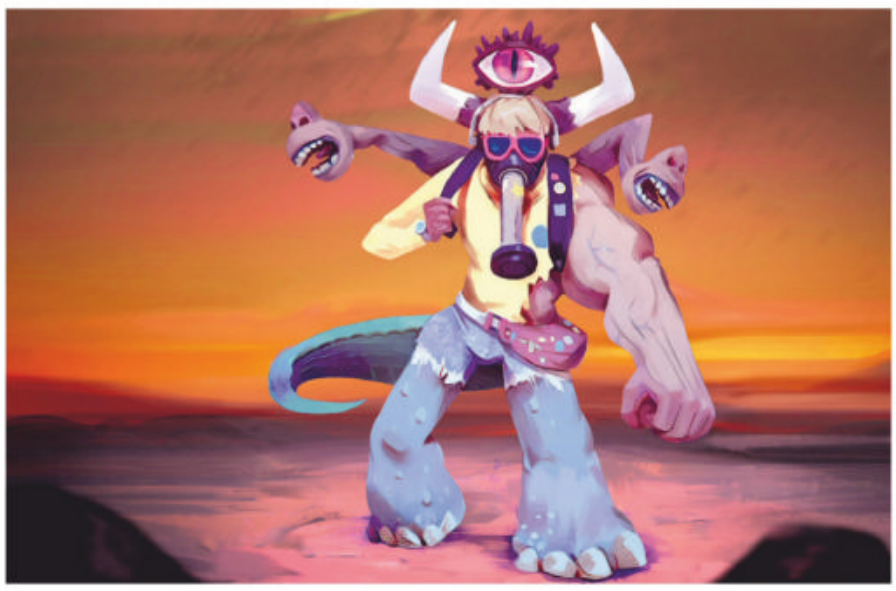
5 "We structured the enemy mutants so that they didn't seem like an organised society, like they were not sentient or evolved. We didn't really want the player character to just be murdering a slightly different species than themselves."

OUT OF TUNE

6 "We did have a brief moment early in pre-production where the game was called One Man Band of the Apocalypse. And it was more about crafting musical instruments instead of mutating. But it was horribly confusing!"

LEFT: "We made sure they all have glowing eyes, so if nothing else you always can see a pair of glowing orbs coming at you."

RIGHT: Concept art for One Man Band of the Apocalypse, the game that then mutated into Rad.



Long Time No Sea

A new Sims expansion is impossible to resist.

I've mentioned this before, but it bears repeating because it's so uncanny. My periodic urges to play The Sims 4 always occur at exactly the same time as the release of a new expansion pack. I don't go looking for them. I just open Origin, it updates forever, then I notice there's new content. A squiz at release dates tells me that Maxis and I are meeting on a synchronous, biannual schedule. "Two weeks, twice a year," definitely sums up how I feel about The Sims 4. My wallet suffers for it; these expansions are not cheap.

Why did I buy Island Living? Mermaids. They're so weird. They float on top of the sea while they sleep. It looks like someone caught them on a line and threw them back too late. Worse, my mermaid was so distracted by her soulmate, an azure dolphin, that she accidentally used the dryer on her bikini top twice, setting herself on fire. Even after being extinguished, she looks like someone left her on the barbie too long.

(I tried to fix her with the cheat menu but it seems as if she's cosplaying as the classic Sims 4 food, blackened bass, forever.)

As well as having a need for hydration, instead of hygiene, mermaids have powers. You can certainly cause mischief with them, mostly mildly uncomfortable moodlets, but your mermaid can also kiss to create happiness, or sing siren songs to make others flirty or inspired. Marrying this creature to a Freelance Writer (one of the flexible, new freelance careers) is an incongruously great idea. Correct me if I'm wrong, but I thought siren songs were less about flirting, more about drowning. Also, what even is a mermaid?

Sims 4's mermaids have an Aquatic Lure ability that boosts the likelihood they'll catch fish. In what I thought was a surprising twist (although a Twitter poll disagreed), these curious creatures are also designed to eat fish. Raw fish is more satisfying than regular food for mermaids. (It took me so long to figure out why she was always hungry.) So, I guess Sims mermaids are actually siren-barramundi. If you're trying to min/max them, another option is the Conservationist career because they can swim around really fast, to research the ocean.

MEGHANN O'NEILL has never seen The Little Mermaid. Her entire understanding of mermaids is based on on the movie Splash, which you could totally recreate in The Sims, if you were so inclined.

New careers are always my favourite thing and it may explain why I play expansions for about a fortnight (because it takes time to conquer them). Island Living also includes part-time jobs, like Lifeguard and Diver, which I was disappointed to realise only have three tiers. I've been combining these with Airtasker-like Odd Jobs, or one-off gigs. They're often little fetch quests or something that require an unusual skill. I've been enjoying the silly stories involved, like the guy who wants waffles and tomato sauce delivered.

Sounds delicious.

Odd Jobs were actually added to the base game, along with a character creation tool. It's like Ultima IV. You're asked a range of questions and then traits, starting simoleans and even jobs are generated for you. Just as I always rolled a bard in U4 (not realising that I was choosing class, just answering honestly), The Sims 4 keeps allocating me Good, Goofball and Gloomy. I have no idea why. I'd never choose any of those traits. If it's not buffing skills or job performance, it's useless, as far as I'm concerned.

Of course, you can skip questions, or the entire character generator, if it doesn't interest you. The Sims has always been good about making all of its content optional. Consider Island Living's new "off the grid" plot selector, where you have to make do with no power. I thought this sounded like a great challenge, except that they've included a range of appliances with a hippy appearance, but which function basically the same as the other fridges and stoves. It'd be cool if Handiness allowed you to create survival equipment, instead.

Am I happy I succumbed (again) to the siren song that is The Sims 4? I mean, I guess I could hand control of my bank account to Ken, like Odysseus being bound to the mast of his ship. I've bought (with my own money) every single game and expansion pack (and many of the stuff packs) over 20 years. Probably the only person who is in deeper than me at this point is Carl, of Carl's Guide, who I interviewed last time I was on this topic. Will I still be buying Sims expansions on my deathbed? I have a sinking feeling I will. PC

> "Why did I buy Island Living? Mermaids. They're so weird. They float on top of the sea while they sleep. It looks like someone caught them on a line and threw them back too late."

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Observation, No Code's fantastically atmospheric sci-fi puzzler.

After the launch

Observation dev on releasing a multi-year project into the wild.

After years of pre-production, pitches, and prototypes, then 25 months of solid development, Glasgow-based developer No Code finally released sci-fi adventure Observation in May, 2019. I reviewed it, calling it a "stylish, understated, and subtly chilling psychological thriller", and other critics shared my enthusiasm for the game, which sees you playing as an artificial intelligence aboard a stricken space station.

That's a long time to work on anything, and I've always wondered: what does releasing a game feel like? So I asked Observation's writer/director Jon McKellan, founder of No Code and former UI designer on Alien: Isolation, about the immediate aftermath of releasing a new videogame to the world.

"We were so guarded during development because we didn't want story spoilers getting out," he says. "Then on release day you're watching people playing it on Twitch and it feels wrong. You've kept this thing internal for so many years, and it's been on your mind constantly, and suddenly it's out in the wild. It's a really bizarre feeling. The rules no longer apply."

No Code makes weird games. Its debut, horror anthology Stories Untold, was a supremely strange puzzle game based around a series of archaic machines. Observation sees you operating a space station as its governing AI. Nevertheless, both games have sold enough to keep the studio open – and it has, in fact, recently moved to a larger building to accommodate more staff.

Even so, towards the end of Observation's development No Code was having something of a crisis of confidence. "You lose perspective when you're working on a game, because you're so close to it," says McKellan. "And in the last six months, all you're doing is fixing all the imperfections. They're brought to your attention every day, so it's only natural that you start to lose confidence. You only see the bad things."

CRITICAL MASS

Observation currently sits at 79 on Metacritic for the PC version and 74 for the PlayStation 4 version. Not too shabby for a niche puzzle game about a malfunctioning computer. "We were really happy when the reviews came in," says McKellan. "Then a couple of days later people started talking about it on social media and discussing the story. At that point it was clear the game wasn't a total car crash after all. Maybe we got it right."

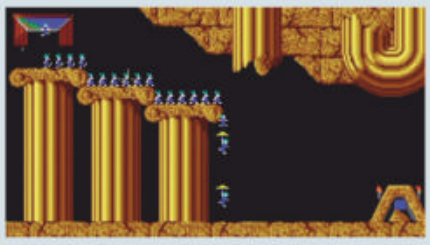
The first review of Observation the

GREAT SCOTS

No Code is a BAFTA-winning indie studio based in Glasgow, Scotland. Its first game was 2016's Super Arc Light, a well-received mobile game. Then it teamed up with Devolver Digital in 2017 to release Stories Untold, a stylish horror anthology, before releasing Observation (also with Devolver) in 2019. Studio founder Jon McKellan has worked on Alien: Isolation and Red Dead Redemption 2.

LEFT: No Code is a small Glasgow-based studio with big ambitions.

BEYOND THE WALL *Successful games developed in Scotland*



LEMMINGS
This puzzle/platformer was developed by DMA Design in Dundee. Since its release in 1991, *Lemmings* has sold over 20 million copies worldwide across multiple formats.

GRAND THEFT AUTO V
One of the best-selling games in history, generating an eye-watering $6 billion in revenue since its release in 2013, was developed by Edinburgh-based Rockstar North.

CRACKDOWN
This open world shooter was developed by Dundee-based Realtime Worlds and sold over 1.5 million copies, becoming a valuable exclusive for Microsoft and its Xbox brand.

MINECRAFT
This is, of course, a Swedish game, but Dundee's 4J Studios was responsible for porting the game to consoles, including the hugely successful Xbox 360 version.

team at No Code read was from Game Informer, who scored it an impressive 9/10. "That wasn't even a punch the air moment for us," says McKellan. "It was more like a massive sigh of relief. We can sleep now!" The game also received 9/10 reviews from Gamespot and Destructoid, although there were some lower scores too.

When the game was launched on Tuesday, May 21, publisher Devolver Digital sent No Code a crate of celebratory champagne. "We decided to down tools," says McKellan. "We were burned out, so we ordered in food, drank champagne, and jumped between random Twitch streams. When someone solved a problem we'd all cheer, or groan when someone got stuck at something, taking a mental note that we might have to patch it."

But Observation's development was far from over. The game underwent extensive QA testing, but when a game is released to the world, and is played on hundreds of thousands of different PC configurations, unexpected bugs are always going to pop up. "We had stuff like, 'I'm playing on Windows XP with an ultrawide monitor and this weird thing just happened'," says McKellan. "I can't even replicate that setup, let alone fix it!

"But by the time the game was released we'd been in bug fixing mode for half a year, so it was easy to stay in that frame of mind. It wasn't like we started a new phase of development. We just kept going. It can be exhausting, but the joy of seeing people playing and enjoying the game balances it out. That keeps you going. It would have been much worse if the game was poorly received and we had to keep working on it."

I wondered if McKellan was frustrated or surprised by parts of the game where people were getting stuck or lost. "There weren't many surprises, actually," he says. "A few months before Observation shipped we put the game through a series of focus tests. We had people test the game then submit a written report, and through that we worked out where the main sticking points were. Then we went into the game and changed a few things."

FINAL FRONTIER

As for the future of Observation, I ask McKellan if he has any desire to tell another story in the space station he and his team spent so long researching and building. "We have a lot of pots on the boil at the moment," he says. "But we did get so used to spending time in that environment, and building it, that it feels a bit weird just throwing it away when you're done with it.

"Our main takeaway from Observation is that we're never making a zero gravity game ever again. We've been talking about the next game quite a bit and we're all delighted that it has gravity. That's like a feature for us."

No Code's next game is currently unannounced, but it'll be a step up from Observation in terms of scope. "We were at capacity towards the end of Observation's development. So after the first couple of months of bug fixing and patches we decided to move. This gives us a lot more options. Now we're in a much b etter place."

ANDY KELLY PC

A collection aside

Nostalgia combines with novelty in the collection this month and you can play as everything from a reluctant date show contestant to a pencil. **MEGHANN O'NEILL** often includes free games but, as she has recently been on a holiday to China and has no money, 'free stuff' has been on her radar. People create and publish games to be enjoyed for free and this is wonderful, for gamers on every budget. Look out for some Australian games here, too, as we lead up to showcasing the local industry at PAX Australia.

GUARD DUTY

DEVELOPER SICK CHICKEN STUDIOS • **PRICE** $14.50
https://www.sickchicken.com/

In 2047, the world is sliced in two. How can it be saved? Is it even possible to stick a planet back together? Guard Duty opens a few centuries before this dramatic event. You play (mostly) as Tondbert, the Roger Wilco of city guardsmen. His voice actor is hilarious, especially when Tondbert's face is swollen with bee stings. After finding his clothes, Tondbert is tasked with saving the princess, who has been mysteriously abducted. It's clear he thinks she's awesome. It was also (indirectly) his fault she was kidnapped.

The game's pixel art is reminiscent of a late Sierra-era King's Quest, with cartoony cutscenes and garish colours. It's particularly evocative when hues wash out to whites and greens in dangerous areas. You'll meet a host of likely townsfolk, including the hag who wants a kiss and a weepy monarch. Interestingly, some characters are never involved with problem solving and function to flesh out a detailed world. I'd usually expect every piece, or person, in an adventure game to be used, yet it's nice to simply experience extra content.

Initial puzzles involve finding objects and imagining solutions. If you're stuck, talking to characters is an enjoyable way to collect backstory as well as the clues that will arise from conversation. You can collect more items than you need to finish the game, too. Food makes me particularly nervous, especially if you can eat it, but I found that a surplus of inventory items kept me thinking. A couple of times, I solved puzzles without meaning to, by using an object and getting an unexpected result, especially later in the game.

Puzzling was a little too easy, overall, but I enjoyed not getting very stuck, except where there was a screen to the right that I hadn't realised was there. This was frustrating. Like in many adventure games, the action often unfolds in discrete areas. Guard Duty is comprised of a majestic town, dark forest and frosty mountain range. At one point, I wanted to get tools from the blacksmith, but I was unable to return to town, when I felt I had a reason to. At the conclusion of Tornbert's quest, you're then transported to a new era and play as a contrasting character.

> "As the story unfolds, things go wrong. In fact, I thought the game was going to kill me."

As the story unfolds, things go wrong. In fact, I thought the game was going to kill me. It kind of did, a couple of times, yet the action continued. Guard Duty doesn't punish you for not saving, like a classic adventure may, but it will force you to replay content if you make an obviously bad decision. You'll find mazes, which annoyed old adventure fans, but with additional features to help you track your progress. As well as a catapult, badlands and a severed hand, the game seemed to include one of everything this classic adventurer remembers so fondly.

Over a few hours, I enjoyed Guard Duty. It was a straightforward, cleverly written and surprising tale. For adventure fans, this is a nostalgic experience that is faithful to classic adventures, while understanding the comforts contemporary players expect. The game is lighthearted and experiments with narrative structures, even getting suddenly dark in places. I played Space Quest so long ago, I can't actually remember whether Roger Wilco actually became a proper hero. Can Tondbert rise to greater things? I'll let you find out.

03
May the stories of the fertile town send you upwards.
GEOF AGRICITE
Rayray Boatshoes
Nova, are you a gamer? Did you know that videogames can make you cry? Oh, you are physically unable to cry? Ah, I'm sorry, Nova, I did not mean to be insensitive! But
05

RELEASED

ANODYNE 2

DEVELOPER SEAN HAN TANI, MARINA KITTAKA **PRICE** $30
https://sean-han-tani.itch.io/anodyne-2

I have a fondness for 'rose-tinted nostalgia', like in Stranger Things, where Dustin sang Neverending Story (in perfect harmony) with his girlfriend. I do not recall people doing that in the 80s, but I'm happy to pretend they did. I also never had a Playstation 1, or a Nintendo 64 (I write for a PC gaming magazine, after all), but I totally grok Anodyne 2. Combining clunky 3D with Zelda-like 2D sounded like a weird idea when one of my composition students recommended me this, but the designers have expertly captured an arcane (yet accessible) version of what could have been.

Certainly, the music is wonderful. The first time I noticed how elegantly it has been implemented was after leaving the inside of a lamp-obsessed woman I'd been cleaning of dust. From a flat mix of nostalgic tone colours in 2D, the aural space opened out to reflect the new 3D context of her house. The melody slowed down and synths were added. I don't know enough about the target systems to be able to tell you how authentic these sounds are, but the music is thoughtfully crafted, playful and cleverer than it should be.

There's a lot to say and it's difficult to know where to start, so here's a story. In 3D space, after driving past it (in car form) many times, I noticed an egg (that the hint dolphin had mentioned) on a rise that was impossible to climb. Figuring I could drop down behind it, I found an unlikely route up a mountain and fell off the edge of the world. Many cheesy ascents later, I was high enough to see the route to the egg and traced it back to a feature that one wouldn't obviously scale, but could. Levels require that you approach them creatively and I absolutely love that.

If exploration and experimentation characterise the 3D space, when you shrink down to 2D, the focus switches to puzzling. Equipped primarily with a Nano Vacuum, you have everything you need to suck up incrementally more complicated adversaries and use them in ways that unlock doors and reveal the 'inner stories' of esoteric characters. Interestingly, you can double your health or become invincible in these sections and I used each healthstyle to progress, depending on how I was feeling (tired, like a challenge or whatever), rather than difficulty.

The story is adjacent to that of Anodyne and you can play either first, although a knowledgeable player may appreciate certain secrets better. The language is poetic and the characters are imaginative (I caught a centipede train by pulling on its uvula lever, or uvulever). I spent the first half of the game simply enjoying the flowery tales people were telling, before I came to understand the game's overarching themes. This is a complicated, tentative and caring experience that is difficult to summarise more explicitly, without spoilers.

As I was saying in a lecture to tertiary composers recently, the reason Garfield Minus Garfield works so well as an unexpectedly poignant portrayal of Jon Arbuckle's inner angst is because (after 40 years, or so) we're different now. We like existential, visual gags more than we hate Mondays. By allowing the idiosyncrasies of old systems to shine, rather than trying to polish them out, Anodyne 2 transcends everyday nostalgia. Four kids and a monster gave audiences a fresh chance to reexamine D&D, after all. This is 90s gaming's moment.

What is it with you mortals and petting me?
Um... are we in some trashy cartoon?
I have blood noses from time to time, sure?
If that's the excitement you're talking about... no.
Is that the table rising, or...?
[Storm Out - End]
Have you ever gotten a bloody nose from excitement?

RELEASED

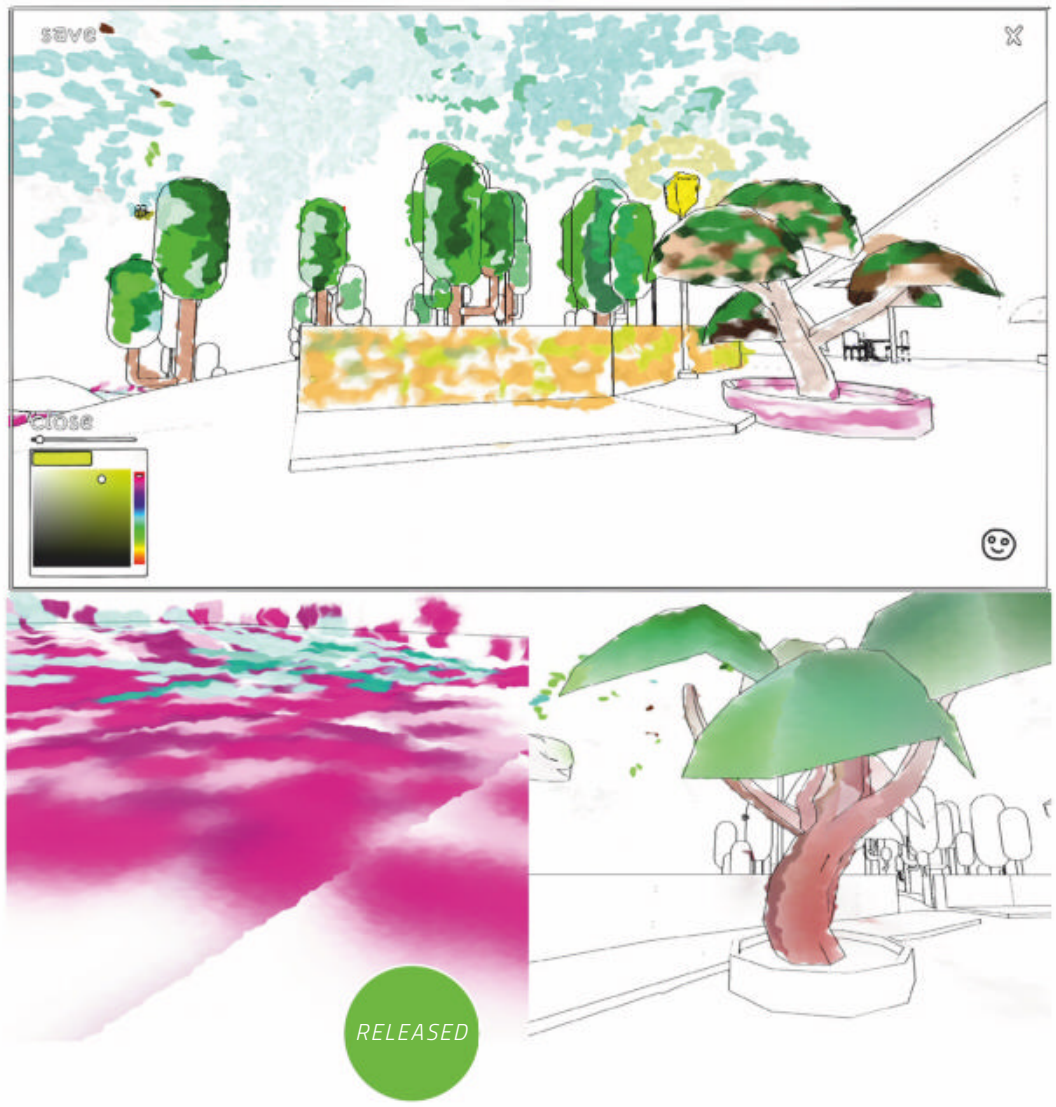
A DATE TO DIE FOR

DEVELOPER JADE STEWART • **PRICE** $6.90
https://jadedsynic.itch.io/a-date-to-die-for

I played A Date To Die for five times and I think I understand it, but I also wouldn't say I'm completely sure about that. It's certainly thought provoking. You're on a live dating show where no-one seems to want to be there. This is so unexpected (for dating shows) that I didn't explicitly notice how grumpy everyone was being until the third playthrough, or so. I mean, they're not grumpy so much as sensitive, and they will share personal stories with you, but choosing dialogue responses felt like walking on eggshells. Why are you people here if not to find love?

I started out trying to game the system; if Rae, the pixie, is quiet, I should say this to charm xer and make the date more successful. I also tried to roleplay in various ways, which everyone seemed to hate. It was far more (personally) rewarding to just empathise deeply with characters and forget about dating altogether. The game neatly explores contexts like dating after heartbreak, as an older person or when you're shy. It reminded me of Katawa Shoujo, the unexpectedly sensitive dating sim, set in a school for disabled children.

One criticism I'd make is that, in order to experience additional dates, you have to replay a lengthy, unskippable opening section. You are given four dialogue options to experiment with, however, and choosing nastier dialogue gave the game greater context. Another is that I never figured out whether the title has a second meaning. I feel like it should. Yet, if you're interested in deconstructing the dating sim, A Date to Die for is a great reminder that there are many reasons why people go on dates, beyond love and sex, even if they are initially grumpy about it.



RELEASED

PAINT GAME

DEVELOPER MAX MYERS • **PRICE** $5
https://mjm.itch.io/paintgame

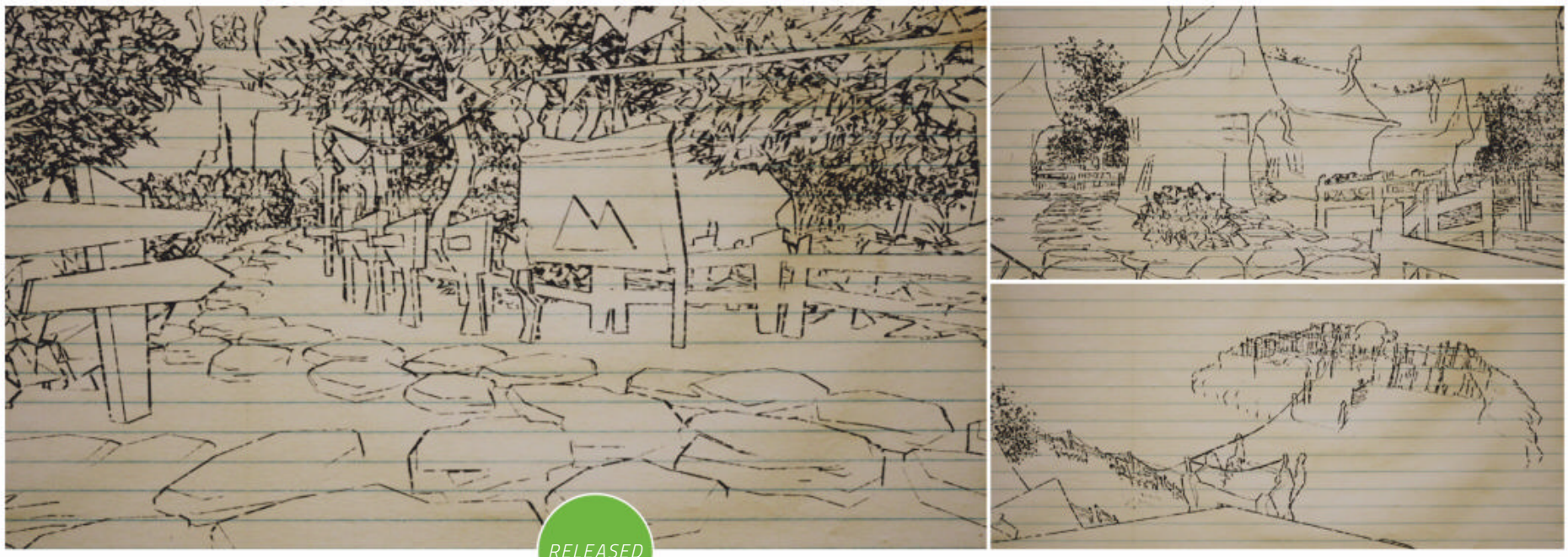
I've never bought an adult colouring book. I actually can't remember colouring as a child, either. I was probably too busy playing videogames. There was something about marking assignments for three days, however, that created the perfect headspace for Paint Game. I spent a good 40 minutes painting a tree. Then, of course, I walked around to the back of it and had to paint that, too. Some of my watery watercolours leaked into the 3D space that was actually the sky, so I then spent some time reluctantly blotting out beautiful, floating, tree-coloured streaks.

Feeling rather like Janet, from The Good Place, I set out to omnisciently colour more of what is actually a very large world. I decided to get purple with what I thought was sand, but my colours were soon undulating prettily. It was the sea; my weird, algae blooming sea. I initially had one criticism; that the sharp lines of buildings can't be neatly adhered to with the runny paint, but after suggesting to the developer that he run a competition and him replying that 'the award could be to stick it on the fridge', I better understood the childlike aim of the experience.

It's not so much that only children colour, more that you're forced to not be perfect at it. So what if my pizza shop looks like someone ate one too many slices of Hawaiian and threw up on it? From a distance, it's highly impressionist. And yes, I remember my kids' colouring books, with the messiness and pictures of dogs drawn over the top of the solar system, or whatever. I don't need a prim, adult colouring book, just the chill freedom to be both sloppy and beautiful.

(Please note, the short soundtrack was made by a good friend of mine, which I realised after playing.)

> "Feeling rather like Janet, from The Good Place, I set out to omnisciently colour more of what is actually a very large world."



RELEASED

THE CLOCK THAT STOPPED

DEVELOPER MRRAMM • **PRICE** FREE
https://mrramm.itch.io/the-clock-that-stopped

There's something about the pencil-drawn aesthetic that has captured my imagination this month. The Clock That Stopped opens on lined paper, with sharp, diamond-shaped leaves fluttering in the wind. It feels both handcrafted and computer generated, in an unsettling, yet lovely, way. The game has a Myst-like quality and if you hate obtuse puzzles, you should skip ahead to the next review. I, however, was hooked after finding certain things that made no visual sense. "What the hell is that?" is always going to make for compelling environmental storytelling.

Because, the thing is, why did the clock stop? And where is everyone? Looks like a cosy town. If you can't be observant, you'll be pointlessly pulling (an absolute abundance of) levers forever. Finding a gear and (special) lever to fix the clock are really just an elaborate premise for, well, complicated lever puzzles. I almost certainly wouldn't have played this if I'd known most of my questions would remain unanswered, yet solving the puzzles was very satisfying, in and of itself. If you like unsettling art, and levers, this may be for you.

RELEASED

PENCIL HEART

DEVELOPER STEPPE HARE • **PRICE** FREE
https://steppe-hare-studio.itch.io/pencil-heart

I'll be blunt. I can't stand pencils that aren't extremely sharp. They're so ineffective and annoying. I have to sharpen them immediately. In Pencil Heart, the protagonist is a yellow pencil you can certainly sharpen, but it is constantly breaking, aaah! You can still draw ugly black lines with a worn down pencil, though. How am I drawing? I am a pencil and I am holding the same pencil, I guess. The mouse cursor draws solutions to common platforming problems, like a ramp up to a higher platform. If you do need to be sharp, you'll need to jump into a sharpener.

Typically, your pencil gets shorter each time you sharpen it, too. The health bar is a pencil with diminishing lead. Trying to get to the love of your life; a pencil with a bow on its head, is unbelievably stressful when you're all short and flattened. Pencil Heart is free to play in your browser and will be over in the time it takes you to have coffee. If you're having cake, too, you can watch a stream of the game's entire development, linked on the itch.io page. I love game jam games and their engaging, bite-sized concepts, even when the protagonist is so annoying.

RELEASED

HUMAN RIGHTS

DEVELOPER MONSTER MANSION • **PRICE** FREE
https://monstermansion.itch.io/

Human Rights is a pop single, just one that replaces the music video with a game. I've now listened to (and played it) several times. Given that interactivity is light, the experience, as a whole, is surprisingly deep. The track is nice to listen to and the lyrics are easy to empathise with. It's inspired by feelings springing from Australia's marriage equality vote. What I came to appreciate was how joyous it felt to create colours and animations with simple clicks and that, ultimately, I was making aesthetic choices about my identity. It's warm, friendly and welcoming.

I think this is a unique and fascinating way to explore how the listener engages with music. Having met the creator, Jacob Leaney, at Freeplay recently, I asked why he chose to create songs first, then games. He says, "Core messages in a song can form design pillars and audiences will make deep emotional connections with lyrics or music when they tie them with actions." Certainly, I feel much more fond of this work than anything else I've heard recently. It's free to enjoy, in your browser.

LISTEN UP YOU PRIMITIVE SCREW HEADS!

David Hollingworth has a chat with CDProjekt Red devs about hacking, Keanu Reeves, and what Nvidia's RTX raytracing capability brings to **CYBERPUNK 2077**. Plus Mike Pondsmith, the game's original creator, talks politics and the road to 2077.

From the very first announcement of CDProjekt Red's next game, Cyberpunk 2077, it was a title that made an impact. From the choice to remake one of tabletop gaming's most iconic – and iconoclastic – settings, through to employing its original creator, and that stunning first teaser trailer…

To put it plainly, CDPR was not messing around.

Regular readers will also know that I've been a fan of the game since it's first pen and paper iteration. Like many other roleplayers, this is a setting and a game that I've already spent decades immersed in. I've met Johnny Silverhand when he was alive; I've had shoot-outs on Night City's mean streets, and even survived a few - Cyberpunk has a pretty brutal combat system! So it's no surprise that when I got the chance to shoot the steel breeze with CDPR's senior level designer on the game, Miles Tost, the roleplaying game was where I had to start…

PCPP: I know the game's timeline is meant to link into that of the tabletop RPG – can you explain some of those links?

Miles Tost: I can't really go in too deep without spoiling anything here. The connection between Cyberpunk 2077's and the original pen and paper game's lore go much deeper than one might think. First off, Cyberpunk 2077 is a canon continuation of Cyberpunk 2020s world. Together with Mike Pondsmith we are working on Cyberpunk Red, which bridges the gap of roughly 50 years between 2020 and 2077. One of the more intriguing links we have teased so far is the re-emergence of a character named Johnny Silverhand, in the game portrayed by Keanu Reeves. Johnny used to be the leader of a chrome-rock band named SAMURAI… back in the early 21st century. How and why he has managed to pop-up after last being seen in 2027 is up to the players to find out. He is of course not the only character from the lore we will encounter and Cyberpunk 2020 (and prior) fans will hopefully get an extra kick out this.

If you are not familiar with the original lore, don't fret! Much like with The Witcher 3, Cyberpunk 2077's story is completely standalone and can be understood and enjoyed without any prior knowledge of the game and its underlying story.

PCPP: As a player of the original tabletop, netrunning has always been a problematic mechanic. Can you run me through how it's going to work in Cyberpunk 2077 - is it a mini-game, or something more organically part of the experience?

Miles Tost: In Cyberpunk 2077, a big connected Net like nowadays is mostly a thing of the past and people basically log into smaller localised sub-nets for their needs. The fantasy we see behind a netrunner playstyle is that of a player who uses Access Points and Network Back Doors, vulnerabilities basically, to breach a local network and take over control. This breaching is done via a mini-game with the help of your Cyberdeck implant. The more powerful your Cyberdeck, the better your chances to gain control over a network. The basic reward allows you to quick-hack devices connected

Miles Tost, senior level designer, and fashion icon.

When combat happens, how you approach it is going to depend on your skills and gear.

BELOW: Not gonna lie… if ever there's a Cyberpunk movie, I want Gillian Andersen in it.

> "Cyberpunk 2077's story is completely standalone and can be understood and enjoyed without any prior knowledge of the game and its underlying story.

"Have you heard the good word about our Lord and Saviour, Chrome?"

to this network and by gaining more control over a network you can even unlock additional rewards, such as code pieces which you may use for crafting, access to additional information hidden in the net or even the ability to hack some more context-driven devices.

Manipulating devices via quick-hack has a resource cost attached to it. Often devices will feature multiple options in which the player can use them, all of which will have a different costs, adding a layer of strategy to the netrunning gameplay.

By hacking into an enemy's personal link you can even break into an enemy squad's internal network, allowing you to quick-hack the NPC members within. The quick-hacks available to you depend on the kind of programs you have slotted into your Cyberdeck. Daemon malware can do many things and it is up to the player how he wants to use it: for example you can jam their weapons, preventing them from shooting or hack their

RAYTRACING AND THE DARK FUTURE

Nvidia's announcement "of RTX support for Cyberpunk 2077 was big news, so we pinned down CDPR's Jakub Knapik, the game's art director of lighting and VFX.

PCPP: RTX support is big news for the game and how it's going to look - has that always been part of the development process?

Jakub Knapik: NVIDIA technology was not part of the development process from the very beginning, but our goals were always to push the engine as close to physically correct lighting as possible. For an open world game with an enormously big city to explore, RTX can bring in a lot of value.

PCPP: what kind of graphical impact will it have on the game?

Jakub Knapik: I think RTX is a brilliant extension to Cyberpunk's already gorgeous visual base. Our game looks great on non-RTX platforms and scales brilliantly when a platform supports it. For example, our Global Illumination implementation gets an extra boost in terms of quality, showcasing much greater detail in open environments; we also gain much more precise Ambient Occlusion. Details of our architecture and assets are more complex and, on top of that, we can use emissive surfaces that create a natural light with soft shadows — all that with ray-traced reflections that add very natural details and perfect space presentation.

> "I think RTX is a brilliant extension to Cyberpunk's already gorgeous visual base

cybernetic hand to force them to pull their guns on themselves. This way a netrunner can be played both aggressively and more stealthily. We don't lock a playstyle into a certain role, but leave that choice to the player.

PCPP: Can you run me through a simple combat example, and how it would play out at various difficulty settings?

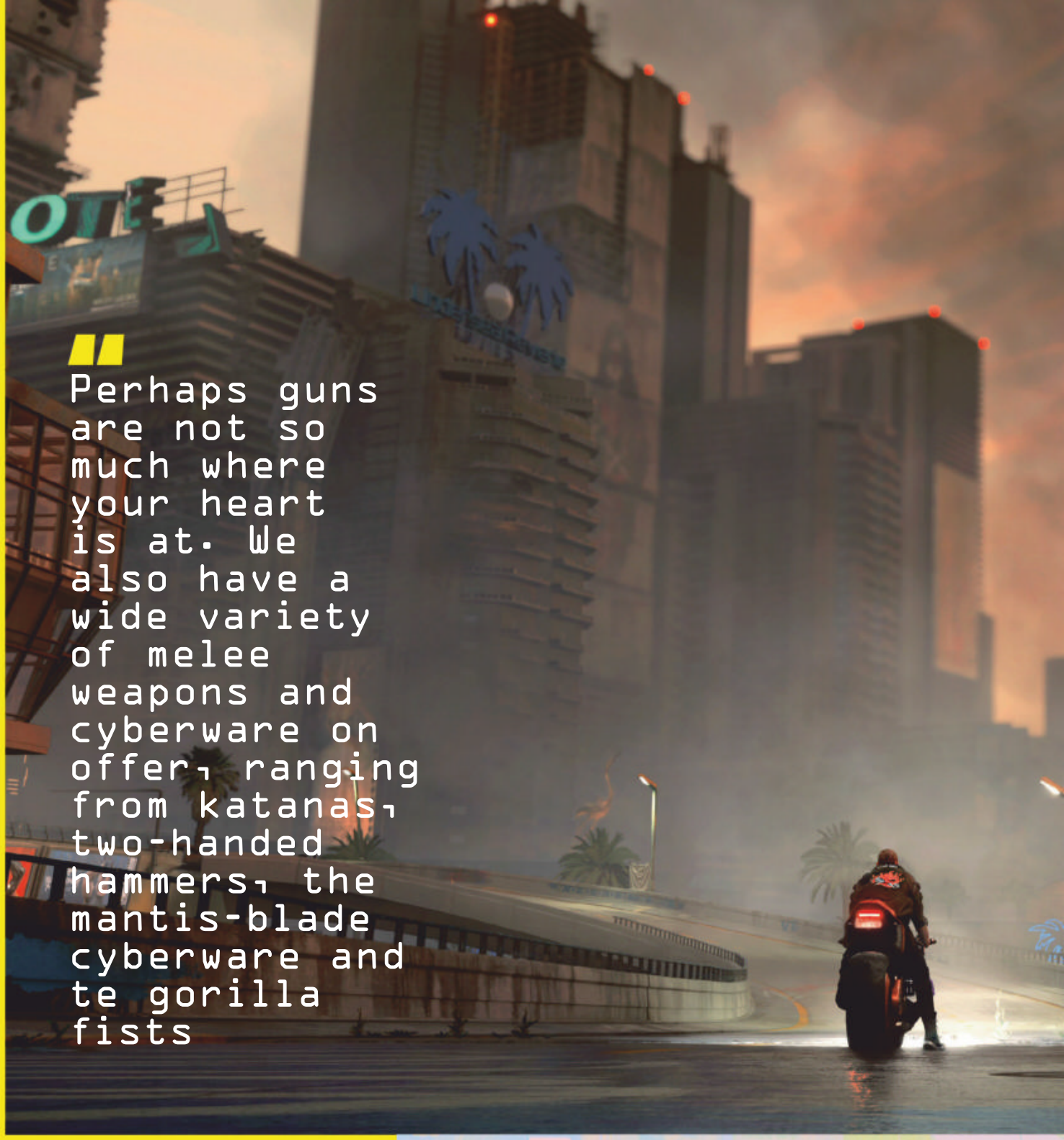
Miles Tost: Combat really depends on what kind of abilities you invested in. I think my previous answer hints at the options a player heavily invested in netrunning abilities might have, so let's take a look at how a different archetype, a player who has invested into abilities reflecting the pen and paper's Solo class, might fight.

The options you have here are many. It begins with your choice of weapons. Our guns are broadly divided into three main categories: tech weapons, where bullets are fired at such speed that they can penetrate cover, but can also be charged for a devastating shot; power weapons with high stopping power, whose bullets can ricochet off walls to hit enemies hiding behind cover; and smart guns, which once locked on, fire bullets that seek their targets.

With this we are also providing a choice for players, who are not too familiar with shooter type gameplay or those who purely want to focus on the story. Smart Guns might not deal as much damage as the other types, but you also don't need to worry about hitting your targets as much. They also look fantastic. Guns can also be customised to a degree, further allowing you to play the way you want to play.

Perhaps guns are not so much where your heart is at. We also have a wide variety of melee weapons and cyberware on offer, ranging from katanas, two-handed hammers, the mantis-blade cyberware and te gorilla fists all the way to broken bottles one may find lying around.

You can even become strong enough to rip out guns mounted into turrets or use people as human shields. The ability to double-jump allows you a high level of agility and reflex-boosters like the Sandevistan cyberware even allow you to use bullet-time. But be aware, all of these things are available to enemies as well, so when they use their Sandevistan, you will see them speeding along the battlefield at superhuman speeds. This allows melee-focused enemies like the Animals to quickly close the distance between themselves and you, allowing for some pretty engaging combat scenarios.

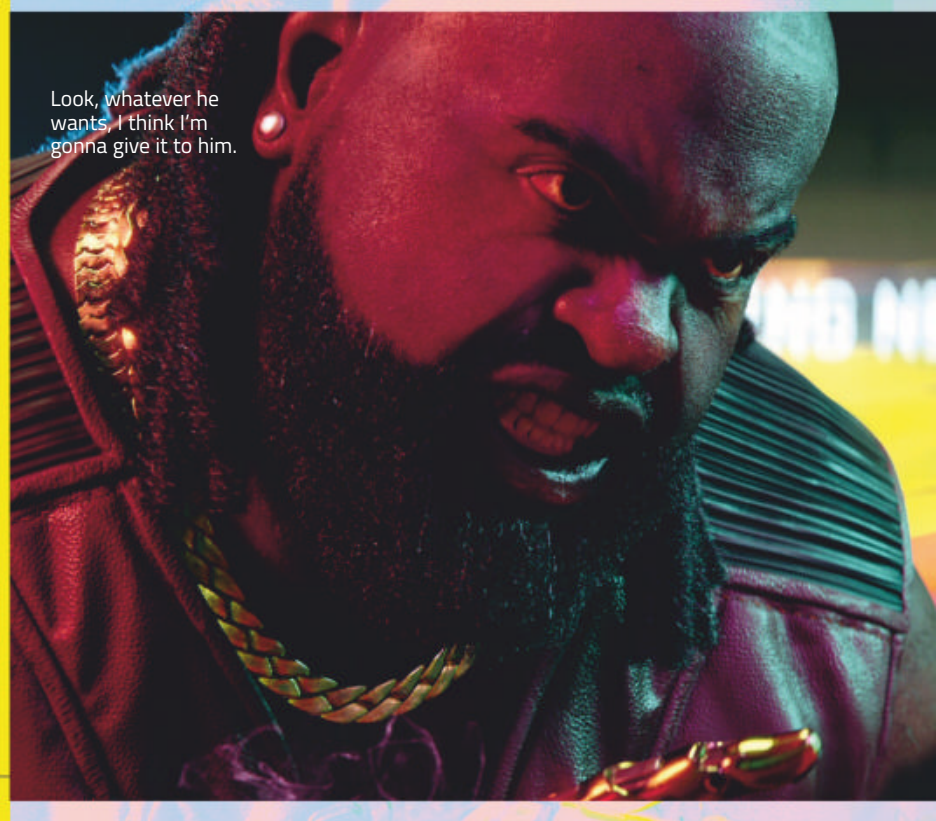


"Perhaps guns are not so much where your heart is at. We also have a wide variety of melee weapons and cyberware on offer, ranging from katanas, two-handed hammers, the mantis-blade cyberware and te gorilla fists

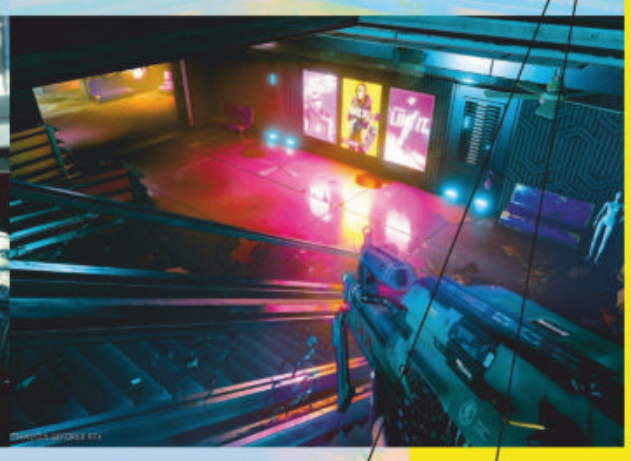
PCPP: You mention smartguns as being tied into the difficulty settings in a couple of interviews - what other gameplay enhancing pieces of cyberware we might see in the game?

Miles Tost: Right, I guess a good example for how the player can take control over the combat difficulty in the game is by looking at our Cyberware. We have shown a lot of active Cyberware so far, some of which I mentioned in my previous answer. There is of course also a lot of more passive Cyberware that modifies your skin or even your nervous system. In the end, the player could modify themselves into a combat-oriented character that is really tough to kill and become an almost unstoppable force, or maybe you chose to focus on Cyberware that helps you avoid combat by improving your stealth capabilities.

PCPP: Going back to Johnny Silverhand, what has it been like working with one of the nicest actors in Hollywood?



Look, whatever he wants, I think I'm gonna give it to him.



Miles Tost: It's been a great experience to work with an actor of Keanu's caliber. When we were writing the story and the character of Johnny Silverhand and how he fits within that story it quickly became apparent to us that Keanu would be the perfect fit. He has a rich background in cyberpunk stories, like Johnny Mnemonic and of course The Matrix trilogy. Even John Wick has some strong cyberpunk-influences, with its contrasting visuals, but also in the way the story is structured. John Wick, much like our Cyberpunk in 2077, is not out to save the world, but rather to save themselves. These characters find themselves tossed into a maelstrom of events that they have little control over and now they are simply trying to find a way out in a system that does not really allow people to leave.

Because of this background and similarities it was pretty clear to us that it would be Keanu Reeves or nobody else. It's not like we went out with the idea of having to find a "star" for Johnny Silverhand, who takes a very central role within Cyberpunk 2077s story. PC

THE MAN BEHIND THE MYTH

Mike Pondsmith is one of the most influential tabletop writers of all time, and is closely involved with the video-game adaptation of his mo t famous creation.

PCPP: If you could tell past you that your tabletop game would be getting the AAA video game treatment decades after its release, how would past you respond?

Mike Pondsmith: Cyberpunk has been optioned for video games since it was first released, so 1980s me wouldn't be that surprised. But he would be amazed at the level of technology and skill present in Cyberpunk 2077. It took a long time, but we finally found the right team with the ability to make something that can live up to 1980s Mike's wildest dreams.

PCPP: How involved have you been with the video game's development, and has any of that filtered back into Cyberpunk Red?

Mike Pondsmith: I've been involved from the start, with story, visuals, and even a bunch of the gameplay. My current role is to mesh the Cyberpunk Red (a new tabletop edition of the game) part of the timeline into a seamless whole with the Cyberpunk 2077 part. One of the best parts is using parts of Red to explain how certain things came to pass in the 2077 period; showing the roots of particular weapons, ideas about the Net, even how certain characters have evolved.

PCPP: A lot of gamers decry politics creeping into their games, but with source material shaped around fighting corporate greed in a world where governments have failed, Cyberpunk seems inherently political. How important is that to you as a story element?

Mike Pondsmith: Politics is the foundation of a cyberpunk universe in my opinion. Otherwise, it's just a bunch of jacked up dudes with guns shooting everything in sight. Cyberpunk isn't really about traditional politics though; it's far less about right vs left. Most cyberpunks for example, are totally down with capitalism if they can get their share of it. But there's a big difference between the free market and megacorps acting like gangsters. If maintaining the bottom line means you're gunning people down in the streets, that's not Wall Street – it's Al Capone's Chicago. So the politics of Cyberpunk are more centered on the gap between the powerful and the powerless; and how technology levels the playing field between them.

Submarines are sailing into World of Warships

Rig for periscope depth, as we go hands-on with a whole new way to battle.

Wargaming is no stranger to tweaking and adding content to its popular military titles. It even knows when something is a bit undercooked, and when to pull back on it or ditch it entirely, so it's a company that's proven itself to be pretty agile - but what's coming to World of Warships is a whole new level of challenge, both to the developers rolling it out, and to a somewhat conservative player-base…

Submarines, a wholly new, fourth class of vessel, are coming to World of Warships, and possibly as soon as the end of the year, and the game will never be the same again.

OBLIGATORY 'WHAT LIES BENEATH' SUBHEAD

We got the scoop - and a really fun hands-on session - at a press event at Wargaming's Tokyo offices earlier this month, ahead of today's Gamescom reveal. Wargaming's already invested years into the new addition, with the first hint of this direction being last year's Halloween event, which saw players command fantastic steampunk submersibles in a limited, strictly PvE event. The work that went into even that short test was immense, and the work's not stopped since.

In fact, sub-surface operations have been a long term goal of the Warships team, but it was a matter of waiting for the right time.

"It took a while to work out, because the game was not mature enough," Artur Plociennik told us during our pre-game briefing. "But now it's ready for another shakeup."

Artur - World of Warships executive producer - is talking about last year's massive changes to the way aircraft carriers work. That change was based around a number of factors, especially how disproportionate carrier-class ships were, in terms of popularity (that is, not very) and game effectiveness (one good carrier player could swing a whole match). The change seems to have worked, too; there are now more people playing carriers, while the ships themselves have become less of a game-maker than in previous iterations.

The carrier update itself was a long term project, and the addition of submarines is a similar task. The timeline looks a little like this:

- Halloween event, 2018
- Concept testing
- Short Super Test under NDA (super testers are a tier of dedicated World of Warships players, who often get to play with new mechanics and ships ahead of their release)
- Extended open test (sandboxed away from the main servers)
- A limited PVP event later this year
- Full integration 2020

"This process is good for the product, and good for the players," Artur tells us, "especially as it is very transparent."

"But who knows," Artur ponders. "If the PvP event works well, it might keep going leading up to the 2020 launch."

All this is against the background of

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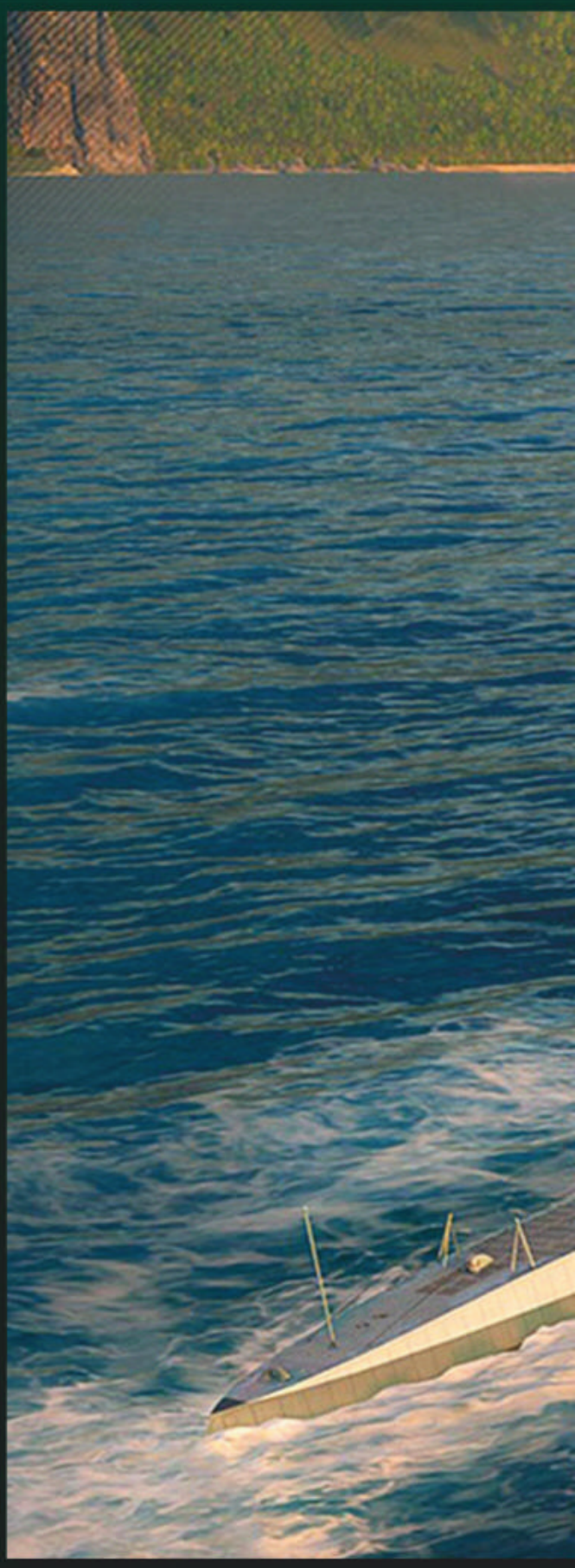
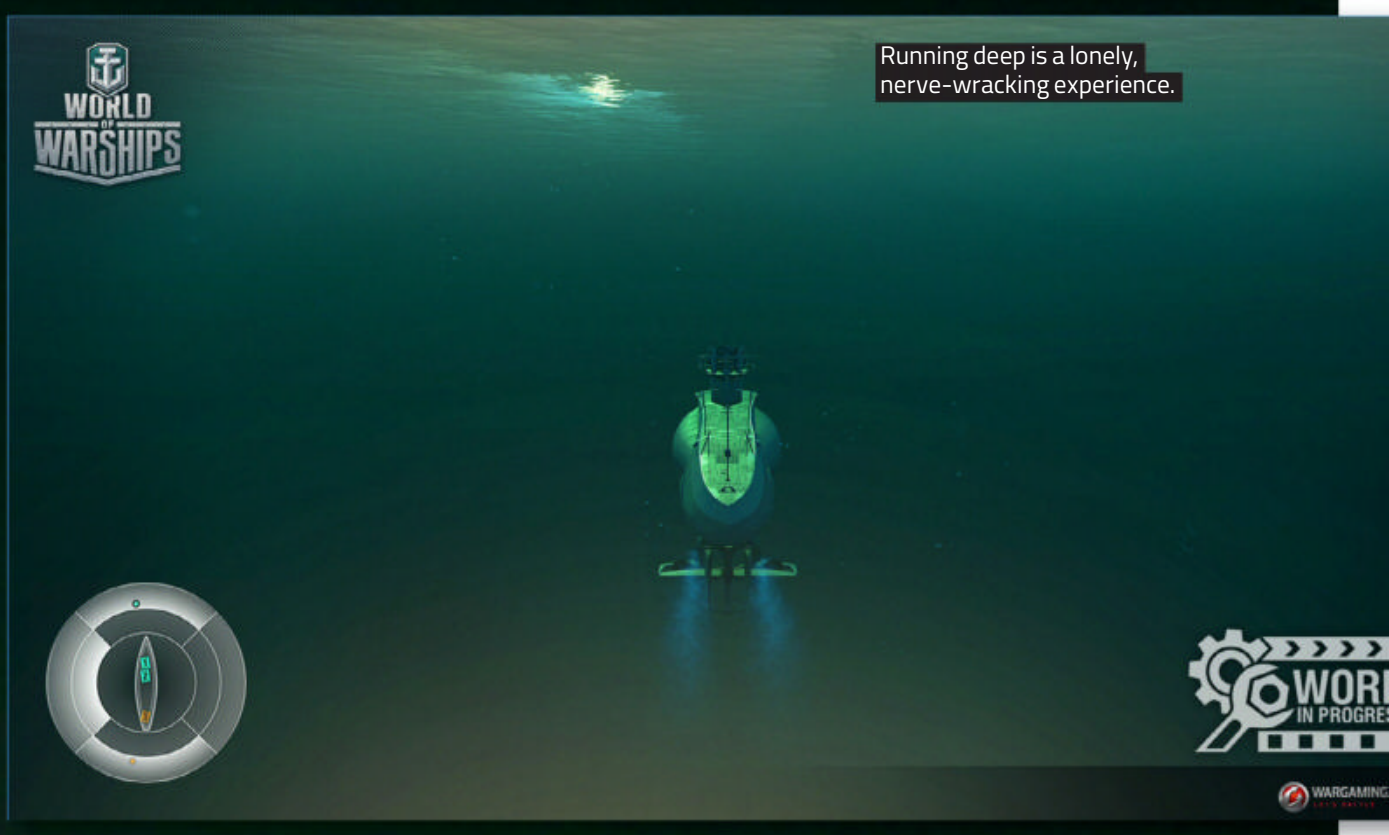


There are no low-teir boats. This is to maintain game balance.

"WE SHAIL INTO HISHTORY!"



RIGHT & BELOW: As with any new tech tree, the first roll out is rather modest.

other ongoing tweaks and additions; carriers are still being balanced in terms of how anti-aircraft attacks work with the new system, and both new ship and entire new lines of ships are planned for before year's end. The Italians are getting a nasty branch of heavy cruisers with impressive burst-damage capabilities, and a new European line of ships will bring together a lot of smaller navies under one banner.

No matter what nation you hail from, though, submarines are going to be a whole new threat.

The broad mechanics of how they work have not changed greatly from what we saw in St. Petersburg last year, when we got to go hands on with both the Halloween event and an early iteration of the carrier update. Submarines operate at three preset depths - on the surface, at periscope depth, and fully submerged - and must balance an ever-dwindling oxygen resource that depletes faster the deeper they get. As always, it's a balancing act between accuracy, balance, and player expectation.

"Accuracy is important, but so is the 'fantasy' of what people expect," Artur tells us. How ships feel in fiction is an important part of the game's development, especially when that is what most people know of these vessels.

YOU HAVE SUNK MY BATTLESHIP

The deeper a submarine is, the harder it is to spot, and at depth only destroyers have a chance of even coming close to finding them - which is another whole new mechanic being added to the game. Historically, destroyers were often tasked as sub hunters, armed with groundbreaking sonar technologies and a brutal array of depth charge ordnance.

This is modelled in the game by what Artur calls a new 'mini-game'. As destroyers are tooling around the map, large circles will appear on the water's surface, denoting that there is a sub somewhere in that volume; the destroyer player will have a short amount of time to enter the circle, after which a second circle will appear, which the player must then get to. This repeats three or four times, each time the volume getting smaller and smaller, as the destroyer's sonar effectively narrows down where the enemy sub is.

When the destroyer reaches the final circle, it automatically launches depth charges - which are pretty much just as damaging as you'd expect. If the first volley doesn't kill you, you're almost certainly going to be killed by the next attack that does hit.

Submarines are, of course, not without their own attack, and that attack has changed considerably since the Halloween event last year. From periscope depth they can launch torps much like any other ship - though only fore and sometimes aft - but once your fish are in the water sub drivers can launch a special, non-damaging attack that Wargaming is calling an 'acoustic wave'. It's a little hand-wavey, and not entirely historically accurate; each acoustic wave hit (and you can hit targets both fore and aft for added effect) makes your torpedo attack more likely to hit, as the torps home in on the target. Torpedoes in World War 2 were generally not guided (though Germany did have some success in this regard), but it does make a submarine's attack run a little more interactive. But that added accuracy comes at a cost, as each acoustic wave lights you up for any nearby enemy to attack.

And let's just say subs are not the toughest boats. Even a destroyer's guns are direct threat; a battleship's broadside, if it finds you before you can dive, is going to give you a very short, sharp illustration in explosive dynamics.

CAT AND UNDERWATER MOUSE

We had a go at both driving a sub, and hunting them down in destroyers, and if I've one takeaway it's that learning how to use a sub effectively is going to have one hell of a learning curve. In a match pitting three submarines - each controlled by a visiting journalist, including myself - the single developer-controlled destroyer kicked our collective butts. Attacking is hard enough as it is, but managing your oxygen level at the same time as manuevering for an attack is a real challenge. While underwater you only have a vague idea of where the enemy is, so you need to be super cautious - going to periscope depth in the wrong position can waste your time at best, and be downright lethal if you end up under the enemy's guns without being able to attack.

On the other hand, coordinating destroyers is a lot easier. When we switched to DDs, two more Wargaming staff came aboard to form a three submarine wolf-pack, but even so we handily sunk every boat for minimum damage. And it was a lot of fun, too - chasing down the last known position of an enemy sub is really quite thrilling.

It's worth pointing out a couple of caveats, however.

First, this whole new aspect of the game is still a work in progress - there'll be new consumables to come, and even ASW (anti-submarine warfare) air units might be introduced for aircraft carriers, so we weren't playing the units in their final form. Even the acoustic wave attack feels very much like it's going to go through a few more refinements before we see it live in open play.

Also, our hands on time was strictly limited to six players in PvP, and only subs and destroyers, so we were able to focus on that aspect of the game exclusively. In a real game, destroyer captains will need to make a hard choice - focus on sub hunting, and hope you don't get nailed by the main guns of a battleship while you weren't looking, or simply look for good opportunities as they arise?

Similarly, sub captains will have an easier job stalking their foes, as they too will be focused on every threat on the surface, let alone that lurking below the waves.

The trick, then, is to integrate submarines into the game in a way that doesn't so much change the way World of Warships plays, but to add a new and entirely organic element - one that feels like it belongs there.

DAVID HOLLINGWORTH PC

GODS AND MONSTERS

& STERS

History and mythology collide in Creative Assembly Sofia's **TOTAL WAR SAGA: TROY**.

By Fraser Brown

Total War is delving into mythology. For the last couple of historical games, myths and legends have been creeping into the war-torn sandbox, but in Total War Saga: Troy, Creative Assembly Sofia is taking things one step further, honing in on a conflict where our best source is an epic poem about petty gods and a giant wooden horse. This isn't Warhammer, though, and history hasn't been entirely abandoned.

So there are gods. And mythical heroes. And even a minotaur. The team's drawn on ancient yarns like The Iliad and The Odyssey, along with other myths, but then squinted at them through the lens of history. Maps and archeology have been used to give cities and armies an air of authenticity, and the minotaur is really a big bloke wearing a bull's head and wielding a massive axe. When he's charging at an army, though, the distinction doesn't matter too much.

"We've got the history and archaeology on the one hand, and we have the characters and the narrative from The Iliad to just pour over them," says lead game designer Todor Nikolov. Troy reinterprets a slew of far-fetched legends, but it's grounded by the historical layer. The familiar Total War campaign structure has been similarly preserved.

"WE HAVE THE CHARACTERS AND THE NARRATIVE FROM THE ILIAD TO JUST POUR OVER THEM"

Just like The Iliad, Paris will kidnap Helen, the Spartan queen, and flee back to Troy, but from there little is etched in stone. Things might play out like the poem, and the eight playable factions favour certain paths and have established relationships with other factions, but this is still a sandbox. Instead of Greeks uniting, hopping on their boats and besieging Troy, they might just fight among themselves over territory back home. Playing as one of the Trojan factions, you could stop them before they even reach the formidable city, then take the war west. If you don't mind being labelled a traitor, you can switch sides, even if you're playing as Hector, the Trojan prince. He's meant to protect his father's city, which he can also inherit, but you could decide that he deserves to be a king a little earlier.

The factions will start small and need to use diplomacy, trade and conquest to expand. Playing as Meneleus of Sparta, you won't just be able to gather all of your buddies and sail off to Troy right away. You'll need to wine and dine the other Greek factions and try to form a confederation, or batter them into submission, before heading east with a massive alliance. And you'll be wanting to bring plenty of heroes with you, as well as an elite army, so that means you'll need to spend time building and planning. You could try to rush off and do it all alone, of course, but Troy is a tough nut to crack. It's essentially Total War's version of a boss battle.

TROY SOLDIERS

"Troy is always this massive, well-defended city," says Nikolov. "You could compare it to Kyoto in Shogun 2. It's a faction of its own and held by Priam, the other king. They've got all the forces they need to hold the city for as long as possible, so it takes a considerable amount of effort to conquer it. I can't imagine that it will be possible to actually take the city near the early part of the game. You need a considerable amount of preparation, forces and, preferably, allies to be able to pull that off."

Or you could use a Trojan horse. Unfortunately, you won't be bundling warriors into the belly of a wooden equine, but there will be events and features inspired by it. Some historians have suggested that the Trojan horse is an allegory for earthquakes, which may have been the real reason the city fell. Poseidon, the god of big waves and big quakes, was also the god of horses, so the wooden horse could represent his wrath. These earthquakes will be present in the game and plague the city, softening it up for attack.

"Troy is left in a shambles, buildings are damaged and the garrison is severely depleted," says Nikolov. "If you fight on the battle map for Troy during that period of time, you are going to see wall breaches, which are otherwise not achievable, and general destruction everywhere. They are windows of opportunity that you can use if you want to take the city, so you'll need to pay special attention to them."

Actual horses won't feature that much in Troy. The Bronze Age Trojans and Greeks used horses in war, but largely for transport or as status symbols. Some warriors will get to ride around in chariots, but cavalry is rare. By conquering a specific region that was said

RIGHT: I'm not going to be the one to tell him there were no minotaurs in Troy.

BOTTOM: Battles will mostly be between massed infantry, with the occasional man-bull.

to host centaurs, however, players can recruit the legendary creatures, though they're really just regular horsemen, effectively light cavalry, who can be used to pester your enemies before quickly running away. Don't expect epic horse charges that send units flying.

Nikolov says this was one of the biggest challenges the team faced, but one they recognised right at the start when they started exploring the Bronze Age setting. With the absence of horsemen, more attention has been given to infantry units. There's the introduction of new flanking abilities, the ability to switch weapon stances and new terrain types, complete with obstacles. In a demo battle, I watch as one unit gets bogged down in some mud, while another sticks their shields on their backs so they can do more damage with their spears.

FAME GAME

Heroes are Troy's heavy hitters. Achilles, Agammemnon, Hector, they're all leaders with flashy abilities and even flashier armour. They're showboaters, too, trying to work their way up the heroic rankings. Some of them, like Achilles, take it extra

HERO ROLL CALL

Get to know some of Troy's *legendary brawlers*

MINOTAUR

He's really just a guy who is super into scary costumes and axes. He's about as tough as a real minotaur, however, and has a penchant for charging at enemies, knocking them back or into the air.

HECTOR

Hector is Troy's big hero. He's a defensive warrior with tanky units and a dad that he needs to impress, at least if he wants to rule Troy. He eventually gets killed off by Achilles, but maybe not this time.

ACHILLES

Best known for having a dodgy heel, Achilles is the greatest hero of the Greeks and can recruit the largest amount of elite warriors, but he's also hot-blooded, moody and isn't the best diplomat.

» seriously, and he'll start sulking if other heroes are more impressive than him. They like to show off in the middle of battles, challenging each other to fights. Unlike Three Kingdom's duels, these challenges lock down enemies for a specific time, after which they can leave the duel with no penalties. And the ability needs to be unlocked first.

The heroes are tough enough to take on whole units without breaking a sweat, potentially with some sort of divine artefact won by completing an epic quest and fulfilling their heroic destiny.

"They're quite like the quest chains in Warhammer," says Nikolov. "Basically, there are a series of objectives, which culminates in an epic battle. And it's a great tool for us to do some narrative in an otherwise sandbox game. With Odysseus, for example, his quest is actually our modest way to retell The Odyssey."

If you're commanding the star of The Odyssey, then, you'll get a quest to go off and fight in Troy, then you'll be recalled all the way home to fight off your wife's suitors and show off your sick archery skills. There might be disguises. If you complete the quest chain and reclaim his kingdom, Odysseus will be able to wield a magical bow in battle, and he'll also be accompanied by his son, who serves as a new hero. Typical royals, always with the nepotism.

Unlike heroes, the gods won't be wandering around the map or flinging spears at their enemies, but they play just as significant a role, each representing a different major pillar of the game.

"We must represent the gods because they're essential to the narrative," says Nikolov. "You can't tell the story of the Trojan War without making reference to the gods. There are several movies about the Trojan War, and very few of those ever mention the gods, usually trying to make the story as grounded as possible, but The Iliad is not like that. We've chosen to implement the gods as part of the gameplay system where, based on what you do in the game, different gods tend to like you or dislike you, gaining or losing you favour."

"THE WHOLE ECONOMIC GAMEPLAY ON THE CAMPAIGN MAP IS GOING TO BE A BIT MORE COMPLEX"

Factions need to suck up to seven gods in the hopes that they'll bring them wealth or skill in battle. Build temples to Ares and slaughter captives after a battle and you'll put a smile on the god of war's face, netting your warriors the reward of being much better at killing. If you need another king to accept a crappy deal or cheer up a gloomy city, however, you're better off making Aphrodite happy.

PLAYING FAVOURITES

The gods are fickle, though, so you can lose favour or even wreck another faction's relationship with their god. One of the ways you can meddle with a faction's favour is by sending in a priest to perform a ritual in the opposition's territory. They're one of three returning agents, which Troy is unexpectedly bringing back.

These characters can perform various actions on the campaign map, like slowing down enemies or spying on cities, but they don't appear in battle.

In Warhammer, they were replaced by multi-purpose heroes, while Thrones of Britannia and Three Kingdoms gave their jobs to leaders. Cutting them out has done wonders for the pace of the game, so I'm uncertain if their return will be a welcome one.

Along with conventional agents like the priest, envoy and spy, you'll be able to recruit epic, one-shot agents. They don't level up or get skill trees, but they also can't fail an action. Once they're used, however, they're gone for good.

They're total game-changers, says Nikolov, but I can already see myself trying to save them up for when I really, really need them, which means I'll definitely never end up using them at all…

There does, generally, seem to be more micro-management. There's no currency in Troy, but factions will need a big stash of other resources to keep things running. Food is used for lots of things, including the upkeep of troops, while more advanced units will need bronze for their gear. Wood and eventually stone, meanwhile, are required for constructing and maintaining buildings. Gold is the rarest resource, but it's prized by everyone and is heavily involved in trading. And if you run out of these resources, there will be penalties, from deserting troops to buildings falling down.

GOING FOR BROKE

"It basically means that you can go

FOR GODS' SAKE

Even the gods have jobs

ARES
God of war and slaughter, Ares can make your warriors tough, your enemies weak and murdering people in his name will bring a tear to his eye. But piss him off and he can empower your enemies.

APHRODITE
As the goddess of love, Aphrodite will make sure your population has a spring in their step, but she'll also lend a divine hand when it comes to diplomacy, making chatting to other leaders a bit breezier.

HERA
As top goddess, Hera is in charge of a lot, including economic progress, production and unit replenishment. Get her favour and your armies will bounce back quickly after battle.

POSEIDON
Poseidon loves sea monsters and horses, but the damp deity is more ambivalent about humans. He's got a beef with the Trojans because he was forced by Zeus to build their very thick walls.

bankrupt in more than one way," says Nikolov. "You need to keep all these things in mind. Sometimes you might even be fine to just endure several turns of food bankruptcy, because a certain situation demands it, but it's a lot more to take care of, and the whole economic gameplay on the campaign map is going to be a bit more complex."

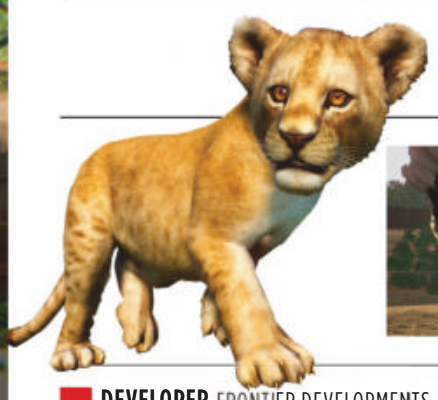
Troy introduces more types of specialised minor settlements that you'll want to conquer and upgrade to fill your stores, and you'll need to be quick about it. Some resources can be depleted, so you have to be the first to exploit the resource to get every last drop. The competition over minor settlements is probably going to be pretty fierce in the early game, but there are also some other ways to meet your war machine's production needs, including trading with other factions, trading with ships that have come from more distant lands and good old fashioned raiding.

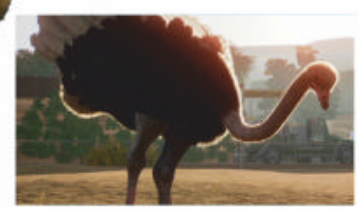
The campaign map itself is definitely in the running for Total War's most striking warzone. It's around the size of Rome 2, though the scale is smaller, dominated by the Aegean Sea in its centre. Despite the prevalence of the sea, ship combat doesn't really fit with the setting – and has never been great – so you won't be duking it out on boats. The colours are more vivid, the ocean is brighter and it generally has the look of a fantasy map, especially when you hover over imposing Mount Olympus. Even the skybox is a treat, with illustrations of clouds and mountains designed to look like classical Greek pottery.

Total War Sagas focus on historical flashpoints, but they also seem like a good place for Creative Assembly to experiment and try out new ideas. Getting rid of cavalry is a pretty bold move, and one I don't think we'd see outside of these spin-offs. So, while the Trojan War isn't really historical, it's the source of some intriguing tweaks to the Total War formula and great fodder for a game that's about truly epic battle. ■

ABOVE: Achilles's secret weapon is his blindingly shiny golden armour.

BELOW: Why worry about sieges when you can stare at Troy's illustrated skyboxes?





DEVELOPER FRONTIER DEVELOPMENTS • **PUBLISHER** IN-HOUSE • **RELEASE** NOVEMBER 2019
planetzoogame.com

Planet Zoo

Keeping the animals happy in Frontier's zoo sim.

Swinging the camera over my zoo, I watch throngs of people wander between enclosures, cooing at the animals and slurping soda. But then there's a ripple of panic. I see several guests fleeing in terror, and the fear spreads. Something is happening in my perfect zoo. I heave the camera into the air and locate the source of the rumble – an escaped rhinoceros.

Rhinos are dangerous animals, but it's lucky for my guests that Planet Zoo is a family friendly game. In Frontier's other park builder, Jurassic World Evolution, an escaped animal usually leads to people being eaten alive. But here it just makes them upset, which in terms of running and managing a successful (and profitable) zoo is still bad news. So the first job in this, my inaugural hands-on with Planet Zoo, is dealing with an escape.

My zoo isn't as perfect as I thought it was, because I'm currently experiencing a severe shortage of vets – a vital member of staff whose jobs include tranquillising escaped animals and returning them safely to their enclosures. I bring up the staff menu, click on the veterinarian button, and drop one directly into the park. It's that easy. More experienced vets demand higher wages, which is one of countless management decisions you'll have to make as you play Planet Zoo. I decide to splash out on a pro.

I plop the vet near the escaped rhinoceros and he immediately springs to action. He pulls out a tranq rifle with a scope and launches a dart into the beast's thick hide. She tries to run away, but it's too late. The tranquilliser kicks in and she slumps into a heap on the ground. The vet seals her in a crate, which magically shrinks to a size he can hold, then he automatically drops it off in the enclosure that was previously assigned to the animal. But before I can release her I need to find out how exactly she escaped.

Surveying the enclosure, it's fairly obvious – there's a gaping hole in the electric fence surrounding it. I click on the existing fencing and I'm able to easily rebuild it by simply dragging my mouse cursor across the gap to fill it. Happy that all the holes have been plugged, I click on the crate and release the rhino back into her enclosure. Disaster averted. The guests, clearly over their trauma, flock to the area to marvel at the rehoused rhino.

And I understand why they're so impressed. I double click on the rhino to activate the animal camera, which lets me admire Planet Zoo's remarkable creatures up close. As she lumbers around the enclosure there's a genuine sense of weight and presence. She feels like a living thing, swinging her tail, flicking her ears, and sniffing the air. Planet Zoo's animators watched thousands of hours of nature documentaries, and it shows. You're going to spend a lot of time watching your animals with this camera mode.

FUR HONOUR

Alas, I can't spend all day hanging out with the rhinos because I have more problems to solve. I drag the camera over to another enclosure and see a herd of pronghorn antelope wandering around a dusty field. I click on one, a female called Maple, and notice that the habitat meter on her welfare tab is very low. Animal welfare is one of the most important things in Planet Zoo and the quality of their enclosure is a big part of that.

Luckily I can see at a glance what I need to do to make this space more pleasant. A series of meters tells me that I have plenty of sand, but I need

more grass, soil, and rock to balance it out. Every species in Planet Zoo has a particular type of terrain it feels comfortable in, which you'll have to cater to if you want them to lead long, happy lives. I click on the terrain tool and begin 'painting' the enclosure. I sprinkle some grass and some rock, and watch the welfare meter edge up.

Some animals like snow and you can paint it in your enclosure as easily as grass. But in a hot climate it won't stick unless you use a device called a cooler, which stops it from melting. But back to those pronghorn antelope, which seem much happier now that I've improved their enclosure. I activate the animal camera again and spin it around them, admiring their fluffy butts. The fur technology in Planet Zoo is really impressive.

Now I have some tapirs to deal with. Their habitat is fine, with just the right balance of terrain, but they're bored. This is because I haven't placed any enrichment items: toys, feeders, and other distractions designed to keep the animals in your zoo mentally stimulated. I bring up a build menu containing the game's vast collection of enrichment items, but the tapirs will only engage with some of them. Luckily, however, I can filter it by species.

Tapirs are natural foragers, so I drop a foraging box. They can snuffle around in here and dig out food, which will have a positive impact on their wellbeing. I also drop a barrel feeder, which they can stick their snouts in, and a rubbing pad for them to have a scratch on. You can place these objects anywhere, but the best location is always near a viewing platform or window. This means your guests will get some enjoyment out of them too.

I'm not done yet, though. A need specific to some species, including tapirs, is 'coverage', which is increased by filling an enclosure with plants and trees. Some animals, like those pronghorn antelope, prefer open spaces, but the tapirs prefer being surrounded by foliage. Clicking on the nature menu I'm presented with an enormous selection of plant life, and I litter the tapir enclosure with monkey puzzle trees and lobster claw plants – species native to the hot South American climate my zoo is currently situated in.

There are, of course, even more plates to spin. But compared to some management games, such as the frenetic Two Point Hospital, the plates in Planet Zoo spin quite slowly. My next job is cleaning my crocodile's enclosure – specifically the water, which has turned a rather disgusting shade of brown. Not only is this bad for the animal, but it obscures the guests' view. I switch to a heatmap that shows me the water quality, and it's currently blazing red, illustrating that sorting this out is a priority.

I select a water treatment facility from the build menu, and it's as easy as dropping it in the vicinity of the water to clean it. But there's a layer of strategy to this, because guests will be unhappy if they see the pumps churning away. So you'll have to place it in a way that's accessible to staff, by being connected to a path, but also hidden away.

You could build a wall around it, perhaps. Or just obscure it with a scattering of foliage. Out of sight, out of mind. It doesn't take much to upset the roving herds of guests lining the pathways of Planet Zoo, which means you're constantly battling to keep them happy.

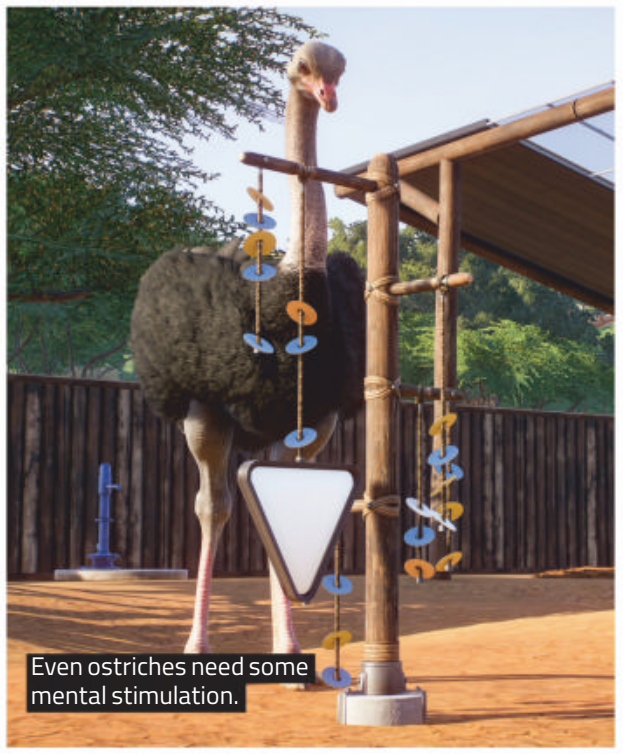
The water clears and my croc goes for a swim. A crowd of guests watch excitedly through the glass, and nearby is a screen that gives them information about what they're seeing. The more research you do, the more info appears here, increasing the educational potential of your zoo. Reflecting modern zoos, Planet Zoo is all about understanding animals and looking after them, rather than just thinking of them as commodities to be exploited.

TIGER STYLE

Finally, I get a taste of what it's like to invite a new animal to the zoo. I spend $15,000 on a magnificent Bengal tiger named Farhan, who I discover is a rescue animal. An animal's upbringing, as well as other factors, will affect their size, longevity, fertility, and immunity to disease. Farhan has a 100 per cent rating for size, but only 33 per cent for immunity, meaning he might get sick easily. But when I drop him into my zoo the guests love him.

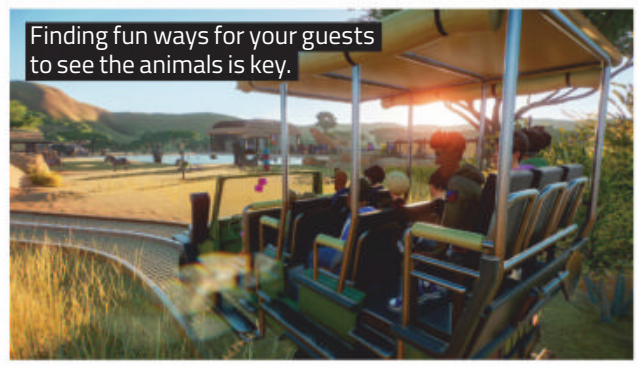
It's clear this demo was set up to give me a taste of a bunch of different game systems in one sitting, but even in this slightly artificial environment I can tell that I'm going to lose hours of my life to Planet Zoo. It combines the deep, freeform, expressive building of Planet Coaster with some really quite remarkable animals. They move, act, look, and sound just like the real thing, and taking care of them has a lot of interesting, engaging layers of strategy, not to mention managing budgets, building the zoo itself, and more besides. This could be Frontier's greatest park builder yet.

ANDY KELLY PC



Even ostriches need some mental stimulation.

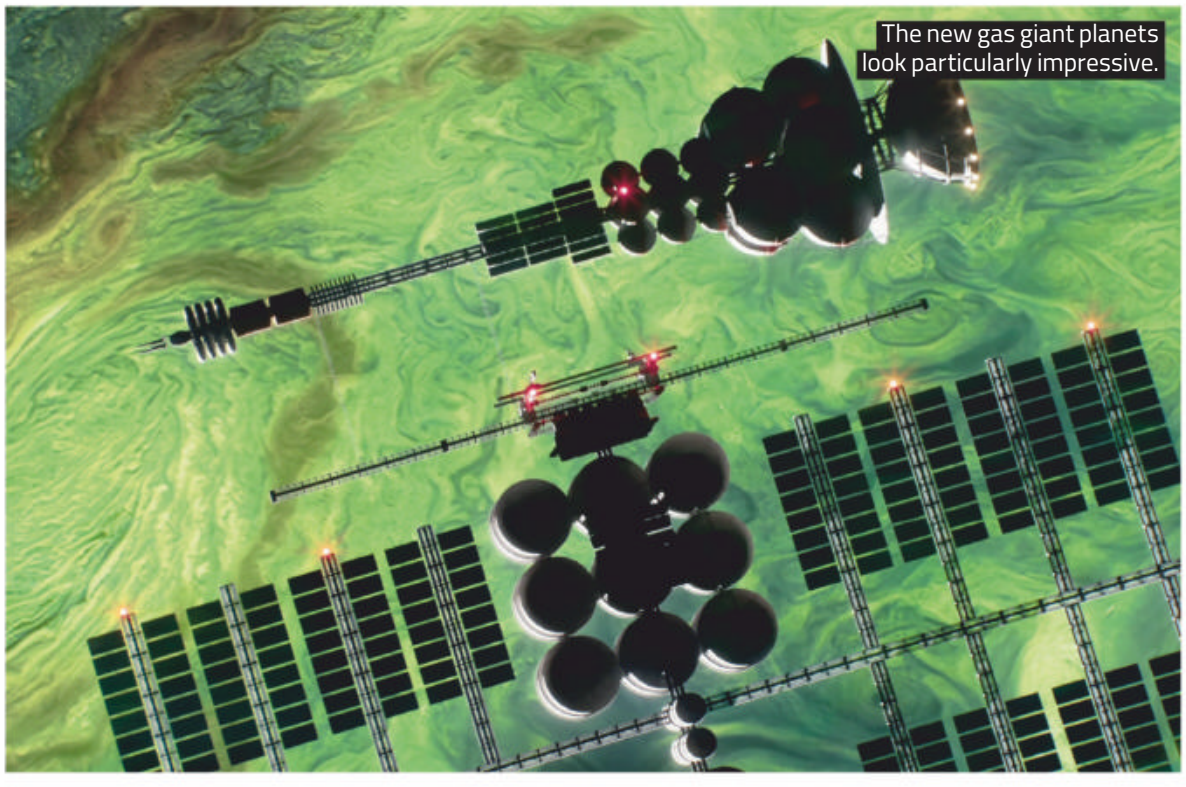
The terrain tool allows you to shape the landscape of enclosures.


Finding fun ways for your guests to see the animals is key.

Hiring skilled zoo staff will keep the place running smoothly.

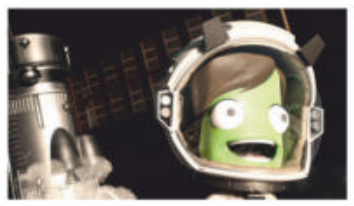
The best videogame warthog since Halo.

Rocket launches now look much more dramatic.



The new gas giant planets look particularly impressive.

Getting ready to land on the Mun, a Kerbal classic.



DEVELOPER STAR THEORY • **PUBLISHER** PRIVATE DIVISION • **RELEASE** SPRING 2020
kerbalspaceprogram2.com

Kerbal Space Program 2

Interstellar travel and colony building are coming to Kerbal.

Getting something this big into orbit is a challenge.

When you land on a celestial body in Kerbal Space Program 2, whether it's the Mun or another planet entirely, your mission doesn't end with you planting a flag. This sequel to Squad's science-based space sim, now developed by a team of Kerbal fans called Star Theory, will let you establish a colony on the surface and watch it grow.

"We have a colony editor that's very similar to the vehicle editor," says creative director Nate Simpson. "But it takes place in situ. You have a parts palette, but you're also looking at actual physical terrain."

But you won't suddenly see a space metropolis spring up, you have to start small. "When you build your first colonies you'll be using these collapsible, prefabricated modules," says Simpson. "They're actually inflatable, and you'll build your first structures with those. Then, over time, you'll unlock new things for your base."

This is tied to the population of your colony. Only a handful of Kerbals will occupy your first, most basic settlement, but over time they'll reproduce and your population will increase, granting you access to new technology. But how do you get more Kerbals?

"We've found a way to couple progression not to the passage of time, but to progress," explains Simpson. "If we had timer-based resource collection or something like that, you could game the system, because Kerbal Space Program lets you control the flow of time. So instead we've linked colony growth to your achievements instead."

Simpson is a little vague here, because he doesn't want to give away all the game's secrets. "When you do something of note in the game," he says, without elaborating. "Kerbals celebrate by multiplying. We think this is a great system because it makes progression organic. You can't just zoom time. You have to do interesting stuff."

BEYOND THE INFINITE

Another exciting new feature in Kerbal Space Program 2 is interstellar travel. Not only can you build colonies in your home system, but you can establish them in other star systems too – if you build a ship that can survive the treacherous journey.

Even getting a giant interstellar ship out of its dock without it exploding will be a challenge, but a satisfying one. "I love the Star Trek-style pageantry of undocking a massive ship," says Simpson. "You can even build little space tugs to pull it out of its parking spot. It's beautiful to see. It's moving!"

I ask Simpson what we can expect to find in other star systems, and he's understandably reluctant to give me too many firm details. "We want all of our celestial bodies to present unique landing challenges," he says. "We want to think of these new planets as being puzzles that you solve with craft design. And as you move deeper into the universe, there'll be more diversity in these landing challenges."

Kerbal Space Program 2 will also be notably prettier than its predecessor. This is especially obvious in its rocket launches and explosions, which feature impressive lighting and smoke effects. "That's just a little icing on the cake," says Simpson. "I've always thought Kerbal was beautiful. That first sunrise when you achieve your first orbit. But we've gone through several generations of graphics technology since then, so we'll have a lot of improvements."

Kerbal Space Program 2 is set for release next year. Original developer Squad will continue to update and support the first game, but it's clear from Nate Simpson's enthusiasm that Star Theory knows what it's doing, and will take the series to new heights.

ANDY KELLY PC

DEVELOPER OBSIDIAN ENTERTAINMENT • **PUBLISHER** PRIVATE DIVISION • **RELEASE** OCTOBER 25, 2019
outerworlds.obsidian.net

The Outer Worlds

Honesty isn't the best policy in Obsidian's first-person RPG.

A lot of games have extra-difficult ways to play. You can finish Deus Ex without killing anyone, sneak through Dishonored without being detected, and play Thief with zero combat. Phil and I each played about 90 minutes of The Outer Worlds, Obsidian Entertainment's upcoming RPG, and I can already predict the toughest way to complete it.

It'll be making it through the entire game without ever telling a lie. It's got to be nearly impossible, because in just this short session alone the two of us bluffed constantly. I lied to a drug dealer who hired me to track down his missing stashes, telling him I couldn't find them so I could keep the drugs for myself. Phil lied to a weeping mother about the fate of her missing son and claimed to be a professional athlete so he could investigate a gambler's murder. I lied to an animal rescue worker, a corporate security guard, and a shop vendor so I could get my hands on an item I wanted. I even disguised myself as an employee of a factory so I could murder the owner, and when the disguise failed I lied my way out of trouble. Twice.

There are so many opportunities to lie, and there's so much to be gained from dishonesty. Plus, being a huge liar is just fun. A squeaky clean, completely honest playthrough of The Outer Worlds – that's going to be the true nightmare mode.

Of course, the quality of a lie needs to be matched by the quality of the people you're lying to, and thankfully the small slice of The Outer Worlds I experienced was full of enjoyable and eccentric characters. The NPCs I spoke to were well-written and voiced, and I spent a lot of my playtime just listening to everything they had to say and wishing I made more time to talk (and lie) to everyone else.

In the town of Fallbrook on the planet Monarch, I took a job from Nelson Mayson, a drug distributor with a bowler hat, a curled moustache, and a charming lack of subtlety. "Might I interest you in a surefire scheme?" he asked. "Wink, wink." Yes, he actually said "wink".

His scheme was hiring me to find his drug shipment – he'd been using alien critters called sprats to move his product, and unsurprisingly the little beasts had all disappeared. I recovered the drugs, first from some sprat corpses, and then from digging through piles of sprat poop. Both times I reported back to Mayson that I hadn't found a thing. He was upset but I walked away with a pocketful of drugs I assume can be put to some use.

I also chatted with a young and polite insurance agent who explained to me, at great length, the various insurance options available on Monarch, including a policy to protect the expressive eyebrows of character actors and "corporate executives with menacing stares". They cover dismemberment (the policy is half-off, ha ha), disastrous marriages, and salesmen who lie about the shoddy products they sell. One of the only things they don't cover is "dullness of mind", which, when pressed, she admits is another way of saying "stupidity".

I also met Catherine Malin, the enjoyably gruff proprietor of Malin's House of Hospitality. She's apparently a bit of a crime boss in Fallbrook, and our conversation quickly turned to the owner of a factory she wanted to claim for herself. When I said it sounded like the

job would involve murder and mayhem, she replied, “Stars! I hope so!”. Another character not burdened with subtlety.

A DISHONEST BUCK

There were lesser characters, too, who still proved enjoyable in small doses, like a robotic sentry who caught me sneaking around the factory. I disabled the bot by feeding him a paradox, “This statement is false.” There were intimidating yet easily bamboozled corporate sentinels, a snooty fellow not named just Chet but ’The Chet’, and a nerdy animal rescue worker who called me a “domicile-intruder” when I walked into his house.

Nearly everywhere I turned in Fallbrook, there was someone to talk to or listen to, and even the conversations that didn’t result in new missions always provided amusement or information that helped fill in a picture of the off-kilter world I was lying my way through.

To fill the gap between conversations, I did plenty of shooting in The Outer Worlds, too. Monarch has roads that seem mostly safe apart from the occasional band of marauders and their vicious pets, but wander off the beaten path and things very quickly get much more dangerous. I decided to tackle the personal quest of one of the two companions following me, a woman named Nyoka, which involved finding the grave of a former friend located in the swamps outside Fallbrook.

I was playing a character who was level 11, armed with an assault rifle with a modded ‘Exact-O-Sight’ scope for sniper shots, a pistol, a sword that did toxic damage, and a heavy machine gun. I’d later replace my sword with a Tossball Blocker – Tossball being a sci-fi sport in The Outer Worlds, and the blocker being the implement you use to play it, sort of like a tennis racket, only with a crackling energy field instead of strings. (I don’t yet know the rules of Tossball, but the scoop is very handy for beating alien lizards to death, so I’m sure hoping I’ll get to see a Tossball match played at some point.)

I’m happy the dialogue has so many appealing options because if there’s a part of The Outer Worlds I’m skeptical of, it’s definitely the combat. Most of the enemies I faced – typically medium and large sized dinosaur-types – don’t seem especially dynamic or interesting to fight. They roar, they lumber after you, they spit goo or fire, and the big ones take a ton of damage before they drop.

There’s a stiffness to the gunplay that harkens back to Fallout 3, more RPG than shooter. The animations are nicely done but the heavy machine-gun barely has any recoil, which makes it feel tame even as it chews through rampaging aliens. The melee feels weightless – slicing or bludgeoning a foe should make an impact but it just feels like swinging through air, even when you connect. The combat isn’t terrible by any stretch – it just felt insubstantial, and even in the short play session I got a bit tired of mowing down the same pack of angry dinos again and again. The full game will need far more interesting weapons and enemy types to keep combat engaging.

I do appreciate the power to slow down time in short bursts, which helps with landing headshots on strafing marauders or with pinpointing Mantipillars, the one enemy I did enjoy fighting. They’re large caterpillar-types who spit plasma, then quickly curl up in a ball and roll away, then pop back up for more spitting. Companions can be put to good use – tap a hotkey to unleash their special attacks which do big bursts of damage, and give you a quick break from the combat as you watch their attack animations play.

CHARM OFFENSIVE

As for the planet itself, between Phil and I we only visited two main towns and some of the surrounding areas – the map and signposts point to several others. While The Outer Worlds isn’t a completely open world experience, even the small areas we got to travel through still felt pretty big.

And I know I’ve been focusing on all the lying we did, but there are other skill-based conversational options – persuasion, charm, and intimidation – that I put to use to open up new avenues and possibilities in the chats I had. And even without skill checks, most conversations give you a choice of attitudes, allowing you to play the role of anything from a polite do-gooder to, you know, kind of a dick.

Unfortunately, I didn’t get a chance to explore the character-building aspects of The Outer Worlds – the character I was given was already built. But I was very happy to see I could unlock a skill for Nyoka called Bonus Support Lie, which would increase my own lying skill when she was with me. That’s definitely a first pick for me.

See? More lies. I’m telling you, a complerely honest playthrough of The Outer Worlds is going to be a near-impossibility – and that’s the truth.

CHRIS LIVINGSTON PC

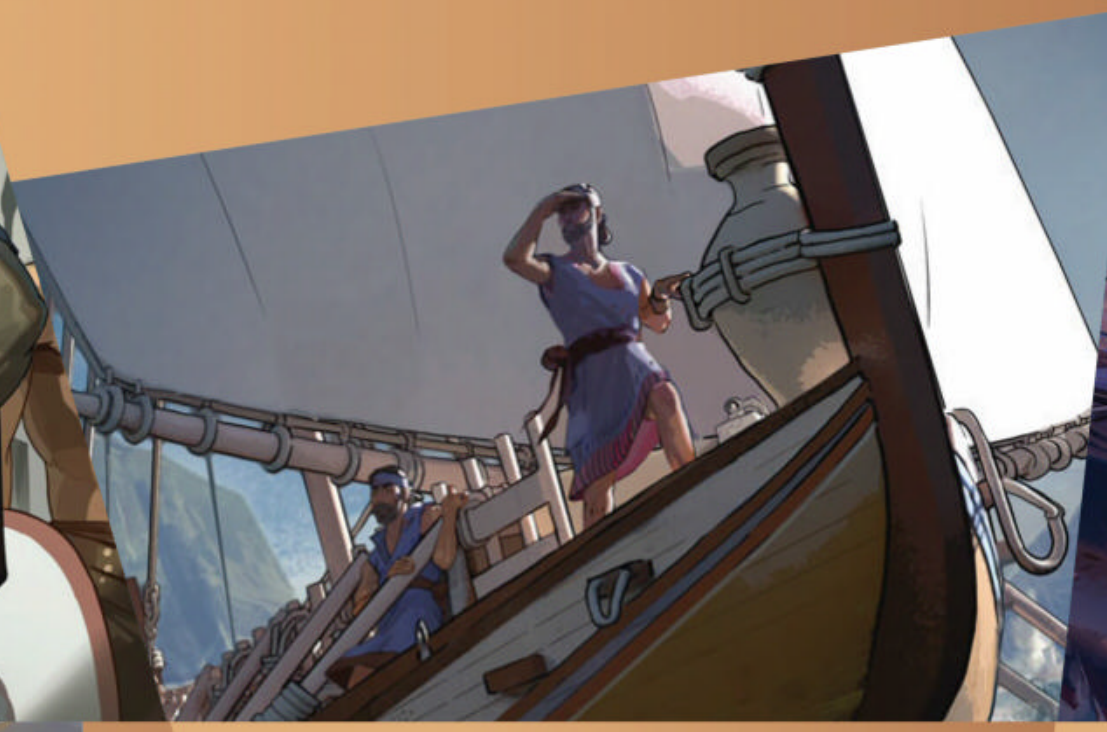
We probably did more talking than shooting...

Lying will only get you so far in this situation.

...but that makes for boring screenshots.

It's a sci-fi RPG, which means chitinous critters.

Introducing **HUMANKIND**, the Sega-backed *Civ* killer from the *Endless Legend* devs.



NEW

AGE

By Jeremy Peel

On ground level, the street that houses Amplitude Studios is a uniform block of contemporary cafés, flats and office buildings. But stand on the eighth floor balcony and the first thing you'll notice is the 1930s. The concrete dome of the Église du Saint-Esprit glints under a Parisian sun, and beyond stands a strange urban mountain, the artificial peak of the Parc Zoologique de Paris. Downwind, on a breezy day, you can smell the monkey faeces.

These are the monuments of a people who left their mark on the world. Achievements that survived assimilation into the cultures that followed, becoming part of the fabric of a nation. They are emblematic of Humankind, Sega's new Civ rival from the makers of Endless Legend.

"The reason we created Amplitude was to make Humankind," says studio head Romain de Waubert de Genlis. "It was a dream we had, to create a historical 4X game. We knew it was a big task. It's the Everest of 4X, and you need to learn to climb other mountains first."

And so Amplitude went to space, making its debut with an interstellar empire builder. Then it embraced fantasy, perfecting turn-based expansion across a hexagonal land. The studio dabbled in roguelikes and tower defence for the spin-off Dungeons of the Endless, and developed a shared universe to encompass all of its games. It established a rare reputation for storytelling in the strategy genre, and for meaningfully involving fans in design decisions. And then Amplitude signed away its independence to Sega.

"We had to find a partner that would be the big brother to protect us from distractions," says de Waubert de Genlis. "That would give us the means to make this huge game." The Sega acquisition has allowed Amplitude to grow in size, and to work with studios like Creative Assembly on animation and mo-cap. Humankind is a triple-A game, and it shows.

TOP: Cities can sprawl outward to cover entire regions.

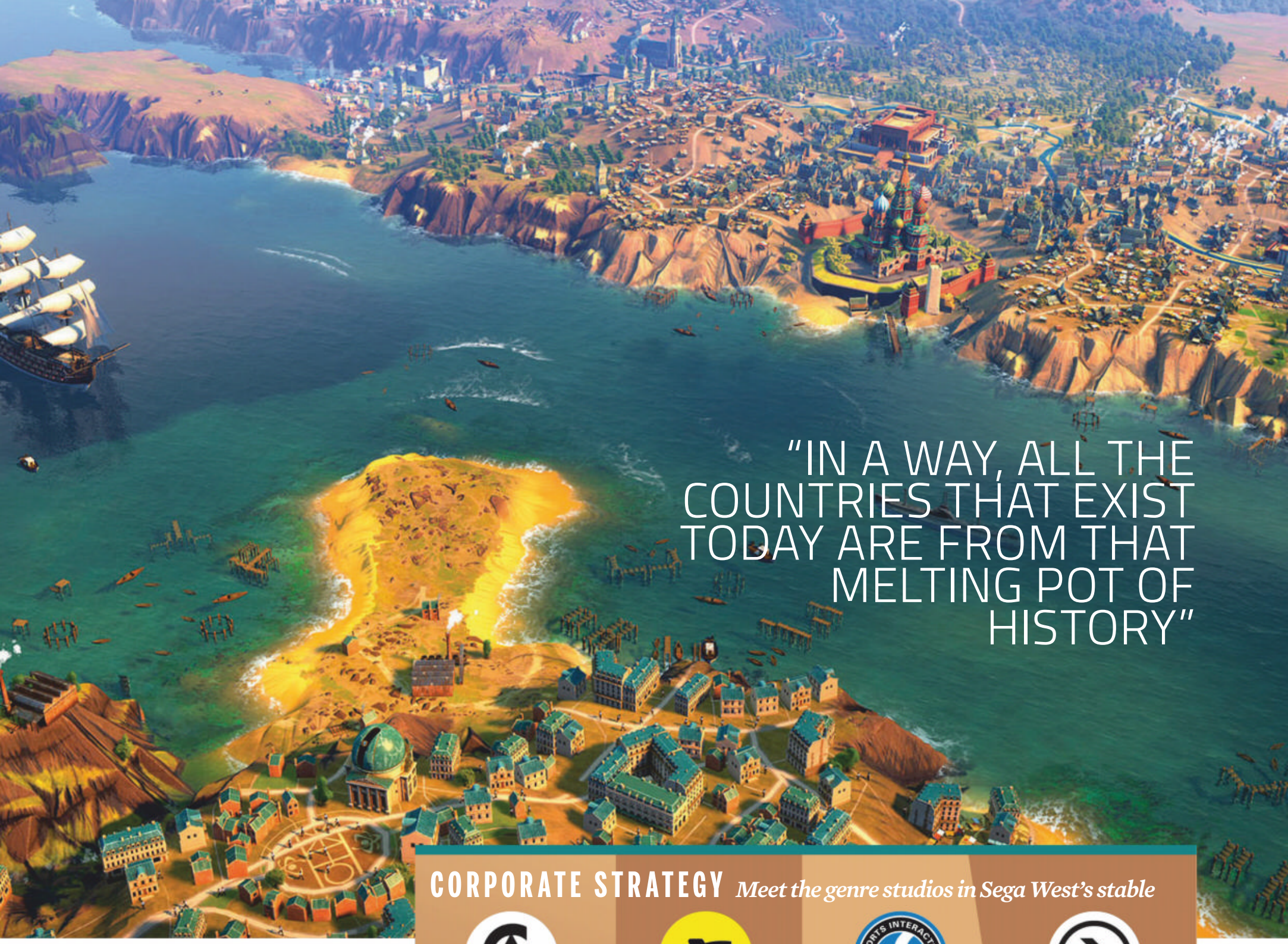
ABOVE: Building next to a volcano might not seem smart, but there are benefits.

LEFT: The Egyptians could disappear, but their buildings won't.

The developer is aiming for a release in 2020, but even in pre-pre-alpha, Humankind has that ambient beauty that makes a good 4X such a comfortable place to occupy for hundreds of hours. As in Endless Legend, this is no flat board but a topographic map in which altitude will influence everything from fog of war to mineral deposits and city defences, a naturally undulating landscape that takes dramatic curves from sea level all the way up to high plateaus. The prehistoric era, where the game begins, it is a green and unspoiled 'Garden of Eden'. You can see the wildlife on the tiles beneath the feet of your tribespeople. And, at much larger scale, the mammoths you might take down as a hunting party. In this exploratory phase, you can split your tribe to cover more territory – but then stand a greater chance of being gored on a tusk, an ignoble end to the founding members of a new society.

Even at this early juncture, you have choices to make – whether to welcome and learn from the other tribes you come across, or hoard food to grow your population free from outside influence. Quickly establishing your first city might give you a headstart, but wandering the world to find wisdom could win you better starting traits, granting your civilisation stronger core DNA.

Transformation comes the moment the prehistoric era



CORPORATE STRATEGY *Meet the genre studios in Sega West's stable*

CREATIVE ASSEMBLY
Total War, a totality of the time.

RELIC ENTERTAINMENT
Last masters of the classic RTS.

SPORTS INTERACTIVE
Football Manager is its own strategy subgenre.

AMPLITUDE STUDIOS
Space and fantasy 4X led them to *Humankind*.

ends. It's here that you'll first pick a culture, from a list of ten, to embody for the next age. Perhaps you'll be the Libyans, or the Nubians. The latter were great with money, and that trait will stick with you even as everything else changes.

"What's crazy when you look at history is that you don't really have a civilisation which has existed from the beginning until the end," says de Waubert de Genlis. "What you have, in fact, is a succession of cultures that together form civilisations. They're always merging together or reappearing as part of other cultures. In a way, all the countries that exist today are from that melting pot of history. And that's what makes them unique."

BUILD AN EMPIRE

At the end of the Bronze Age, you'll pick another great civilisation for the following era. The Nubian mastery of commerce might blend particularly well with, say, the Roman knack for empire-building. You can optimise your route through history this way, or you can potter along and enjoy your own story, seeing where circumstance takes you. A new era might hit when you're looking to move on to another part of the map, for instance, in which case a nomadic society would suit just fine.

Over six eras with ten cultures each, you'll shape your nation like the protagonist in an RPG, seeing what kind of people history turns you into – while always remembering where you came from.

That latter point is made easy by Humankind's art direction, which does a marvellous job of conveying a civilisation's journey so far. You can see each culture literally layered in the cities of your rivals – the straight streets and long roofs of modern Germany giving way to the occasional pyramid or Forbidden City-inspired palace, revealing Egyptian or Chinese ancestry. Amplitude has built a clever modular system that combines patterns and paints procedurally, so that you can tell a country's path through the past at a glance.

Of course, that also means you can know in advance what you're up against. Just as civilisations carry forward unique traits and buildings from their progenitors, their cultures mould their military too. The Chinese bring rocket carts, and the Romans the Praetorian Guard that can fend off far more advanced units thanks to a powerful adjacency bonus. Even a regiment is a multicultural celebration in Humankind, a greatest hits of all your identities through the ages.

Once armies clash, their units spread out across nearby tiles to create a turn-based battlefield where tactical manoeuvres can win the day. The Praetorian Guard might protect a well-placed rocket cart on high ground, but their defence could be circumvented by cavalry. That's the idea, anyway – Amplitude isn't ready to show a fight unfold yet. But it has assigned a dedicated dev team to battle design, which is an important break from form.

In previous Amplitude games, battles were partly

"YOU CAN'T WIN HISTORY, THAT'S NOT WHAT HAPPENS"

automated and designed to last no longer than two minutes. The intention was to prevent military strategy from dominating every other aspect of empire-building, the way it has in most 4X games to date.

"The thing is," laughs studio brand director Max Von Knorring, "all our players just asked for tactical battles. So we're going for it."

WRITE YOUR OWN HISTORY

But Humankind is no conqueror's playground. This is not a 4X in which you aim to fill the map with your colour by the end of the game. After all, no empire lasts forever. "You can't win history, that's not what happens," says de Waubert de Genlis. "You write history. It's not about who will be there in the end."

Humankind is as much about being remembered as growing your territory, and victory is tied to your fame. Fame is a point system in Humankind. You acquire stars when you do anything memorable, like building a megalopolis or fighting a momentous battle. And at the end of a game, the points are totted up to determine a winner. What's fascinating, though, is that fame can be gathered in huge amounts at any point during history, moving the focus away

TOP: That song about the wise man and the rock? Sound strategy.

RIGHT: One day, these guys' descendants will pay a website to prove they're Viking.

from the endgame.

You'll need seven stars to advance to the next age, and the quicker you gather them, the more fame you'll have. But there are a potential 21 stars to earn in each era, so it might make sense to go all in while you're the most powerful empire on the board, mopping up as many stars as you can before moving to the next phase.

The choice to extend the glory years of your civilisation is available during the passage to a new era, too – where you can decide not to become a new culture but instead double-down on the identity you already have. You'll miss out on new traits, buildings, and units, but again, you'll get more fame. The trade-off might even mean you struggle to compete with more advanced civs in the late game – but if you've judged it right, that won't matter. You can watch your territory diminish afterwards as your enemies ally against you, knowing you've built an empire that will live on in memory.

"The Mongols had this huge empire that spanned from China to Europe to northern India," de Waubert de Genlis points out. "And although Mongolia is a small country today, their history, their story, is amazing." While fame is only added up at the end, a game of Humankind can effectively be won at any point in history. It's a system that reflects the timelessness of human achievement – China and America might be the great imperialists of our modern era, but it's the Roman Empire that we remember.

Amplitude believes that its system solves the predictability that plagues the genre's late game. Lead designer Maxence Voleau sums up the issue, "You're in the endgame of a classic 4X, you've won already, but you still need to do the last steps." In the final turns of Humankind great empires may be dwindling, having long since traded progress for fame – and there's always time for a new upstart to leave the largest impact on history.

LEAVE YOUR MARK

I wonder whether 4X fans are ready for a game that doesn't hand them the Earth by the end of a campaign – that might see you occupying a modest corner of the map instead. Then again, PC gaming has been changed by the success of XCOM, Crusader Kings II, and Dwarf Fortress – games that have taught players to prize a brilliant anecdote over a boring victory.

"We'll give you markers along the road," says de Waubert de Genlis. "So you understand that yes, you've lost territory. Yes, you've lost colonies. But you're strong, and you're entering the sixth age as the most interesting country, with an amazing story. What you want to do is make sure you survive the last age and make sure we're still talking about you at the end."

It feels like a shame for the writers at Amplitude to hand the pen over to players in Humankind. The Endless universe is full of funny and fascinating cul-de-sacs. But it makes sense to have great storytellers in charge of the systemic story of history. It's Amplitude who, at the conclusion of a game, will pick out the triumphs to remind you of – chronicling your path through the world in a way that leaves you proud.

"When people raze your city, you'll be very sad," says de Waubert de Genlis. "But some years later you'll be able to dig it up and find all this knowledge from the past. You know you'll come back for it." It's an approach that taps into a fundamental human desire for legacy. To know that, in the final counting, you made a mark.

There's a genre neighbour looming over Amplitude as it expands outwards. In Humankind terms, Civilization is the grand old empire. "It's a game that made us want to create this game," says de Waubert de Genlis. "We have a lot of respect for it. But there are so many things we could do that we couldn't wait for anyone else."

The same reverence that has ensured Civilization's place at the peak of 4X for decades is also its greatest restriction. While Sid Meier has made a point of passing custody of the series on, there's no getting around the fact that Civ has a formula Firaxis must adhere to Amplitude is not bound by the same rules. "If they change a button somewhere, the players will go crazy," Von Knorring notes. "We have the chance of having that blank page."

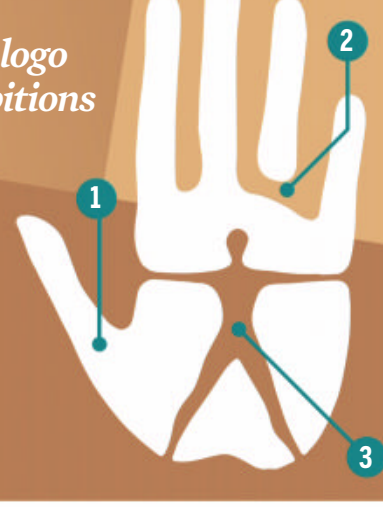
Not for nothing is Humankind's logo a handprint. It's the studio's play to leave its mark on the genre it loves. "It's the reason we created Amplitude," says de Waubert de Genlis. "I would love it to be the game we're remembered for. That's why we're sending all our troops into battle, no reserves. It's all in." ■

ABOVE: If you reach the next era quickly you'll get the first pick of the cultures.

LEFT: Forests offer industry bonuses for your cities.

A BIG HAND

What **Humankind's** *logo tells us about its ambitions*



1 Digits are key to tracking our identity, one of *Humankind*'s big themes.

2 This isn't a hand, it's a handprint – a way of leaving a mark.

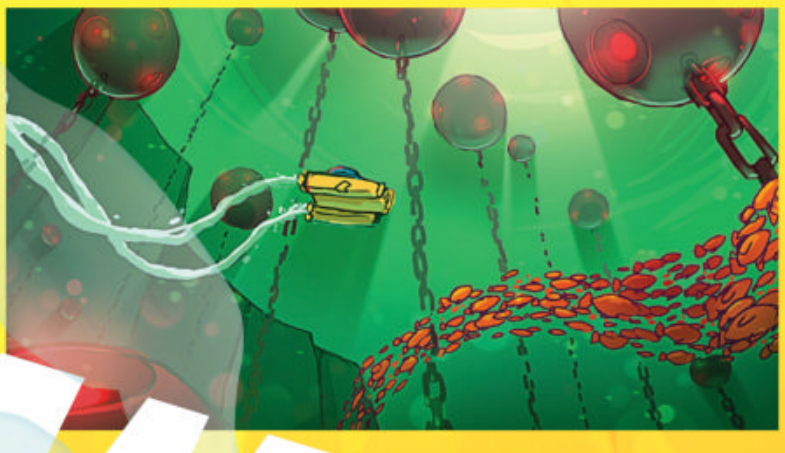
3 Da Vinci's Vitruvian Man, a symbol of humanity's connection to the planet.

WHEELS

MOTION

DEAD CELLS studio Motion Twin is taking a unique approach to its next project.

By Tom Senior



‘What’s next?’ For an independent studio riding high after a big hit it’s an exciting question, and a daunting one. After the success of its excellent action roguelike Dead Cells, Motion Twin is in the process of deciding what to do next. In a normal studio the higher-ups would get together, make a decision, and then tell the rest of the studio what to make. Motion Twin is different. Visit their website and you’ll see the message “NO BOSS” proudly displayed on the front page. No-one at Motion Twin has a job title, and everyone has an equal share in the company.

That’s great for staff members who get to take home a share of Dead Cells’ success, but it comes with unusual challenges, especially when the studio needs to make a big decision about its future. When I arrive at the Bordeaux studio a small team has been generating prototypes for four months. One programmer is working on a Sekiro-inspired third-person combat system. Another leads me through a slideshow of gorgeous concept art, explaining how the prototyping process works.

It’s fluid, and ruthless. A designer might inspire an artist to create some concept pieces, and the concept pieces influence the designer’s idea of what the game might be. The moment the idea runs into major problems, it’s killed. The best bits are pillaged, and might make their way into future prototypes. At some point, organically, the team hopes to arrive at an idea that everyone believes in.

TWIN STUDIOS

The prototyping team is small, and made up of Motion Twin veterans. The rest of the team consists of newer staff members, and they work on upcoming updates for Dead Cells. In a flat business structure it’s difficult keep team members focused on separate projects. Motion Twin does this by existing, technically, as two businesses. The Dead Cells division is called Evil Empire.

“On a daily basis, it’s like we are just working together every day,” says Motion Twin vet Sébastien Bénard.

“But we decided to make a different company to manage everything which is Dead Cells related, just to make sure that we can actually be part of the team which is focused on making new things without any interference.”

The two teams sit side by side in a small open plan office, and move around regularly to show each other work. Evil Empire generates ideas for new Dead Cells updates, but these ideas are still approved by former Dead Cells developers at Motion Twin. It shows that even in a ‘no boss’ environment, there are hierarchies, they’re just less visible than they would be in a conventional studio. The advantages are clear, however. Team members freely offer feedback on prototypes and concept pieces. Artists are free to make game design suggestions. The designer might disagree, or incorporate the feedback in future builds.

The structure challenges the idea that employees in creative industries must specialise in just one discipline and stay shut out of others. A programmer needn’t just be a programmer, even if that’s their main day-to-day role. Of course this only works if the team isn’t too large. Scaling up is a significant challenge for Motion Twin. Every new hire introduces a new voice and potentially affects the cut that everyone takes home from a project. There are practical office considerations too. Everyone needs to be able to move around and talk freely without disrupting each other.

FLAT PACK

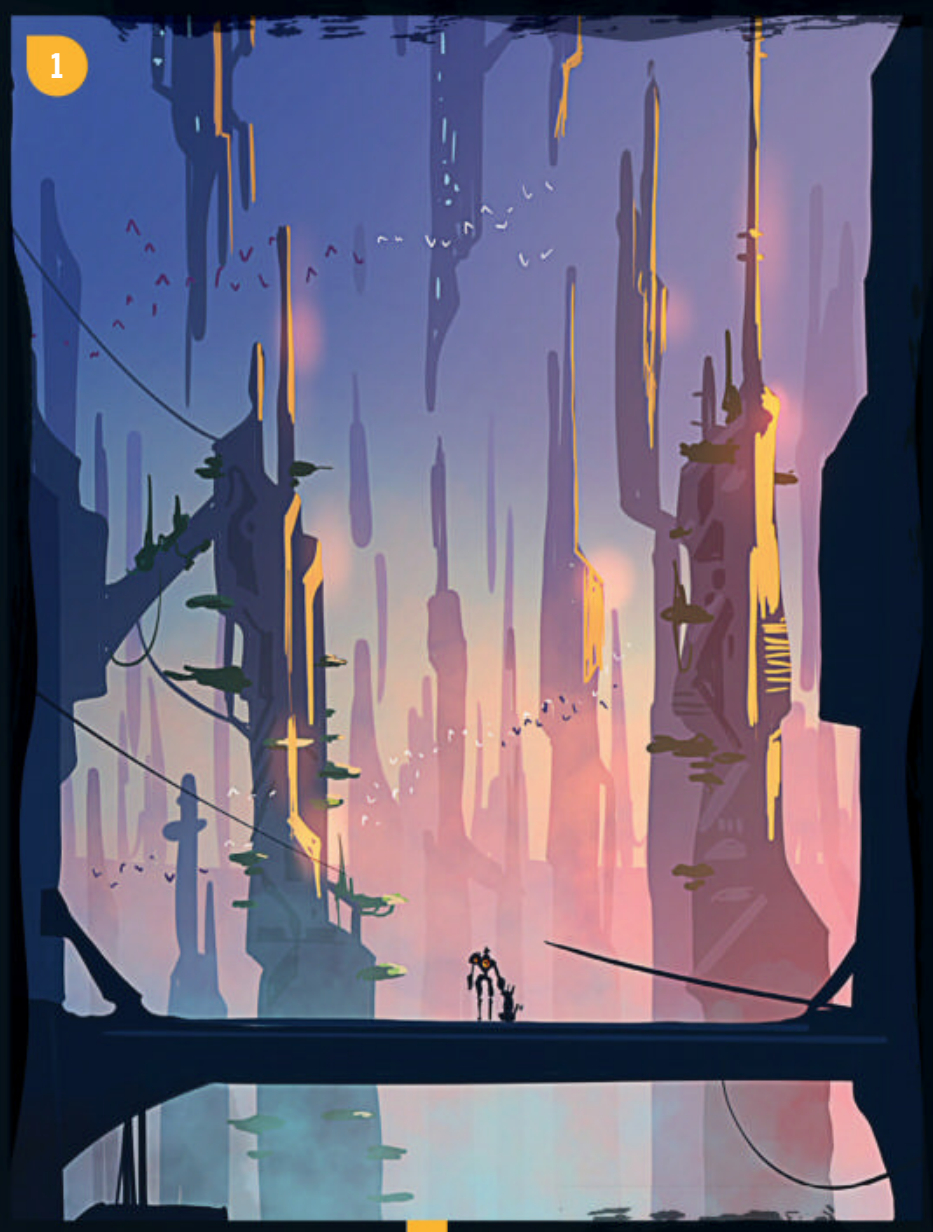
PC Gamer has visited hundreds of studios all over the world, but this one is not quite like any other. Motion Twin and Evil Empire has an informal structure like Valve, but with a profit share system rather than a peer-reviewed pay system. The team is small and great at generating ideas, but there’s an underlying pragmatism to the prototyping process. The team are also testing engines, workshopping creative processes to answer essential questions like ‘how long does it take to create an attack animation’ – this is the gritty organisational work that underpins game development.

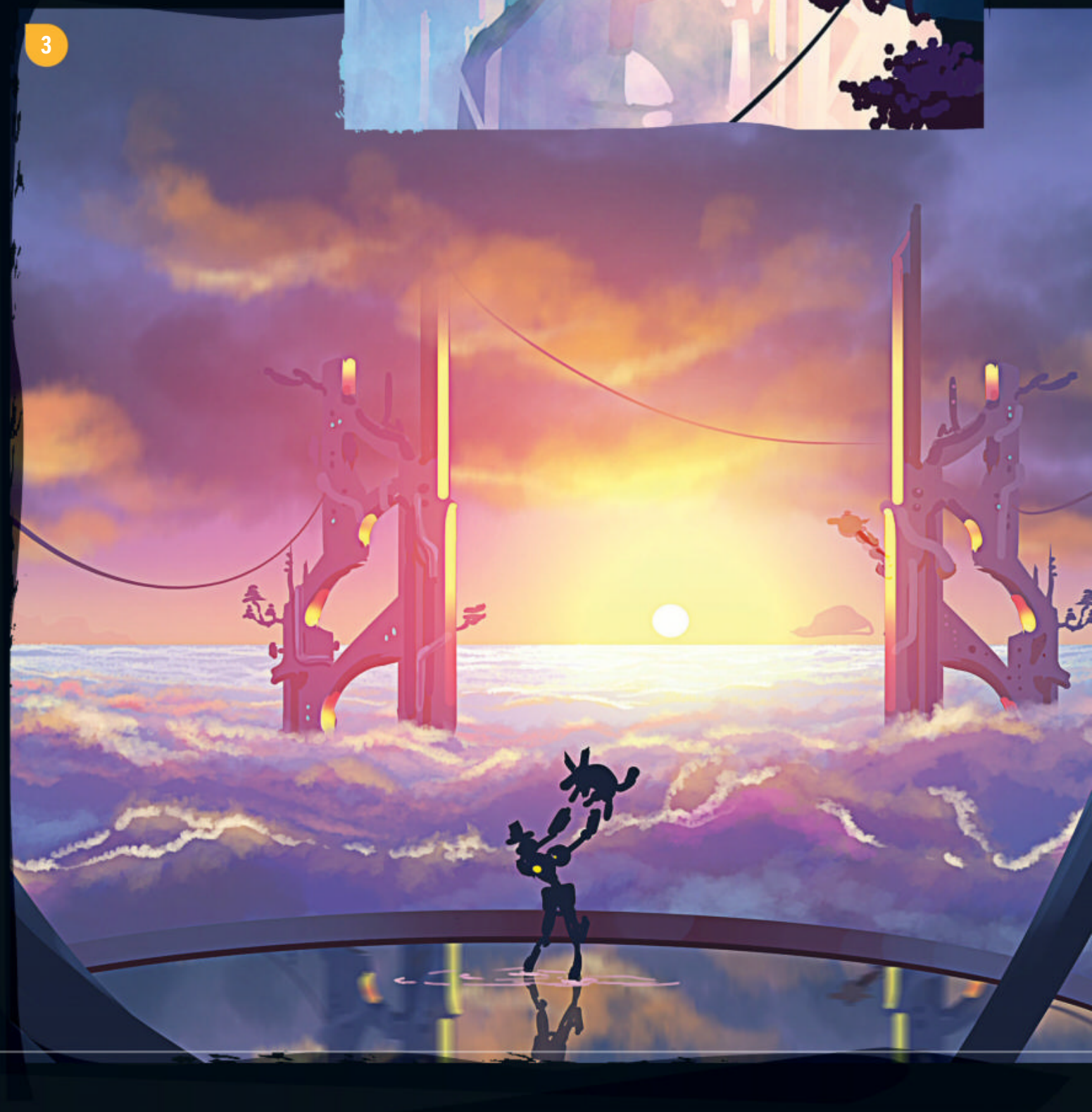
Over the next few pages we’ll move through some of Motion Twin’s beautiful concept art. The team’s keen to stress that its next title probably won’t look like this – it’s all experimentation. But, when its follow-up does come out, return to these pics, and maybe you’ll see the shadow of an idea that survived and found its way to the finished game. ■

FAR LEFT: The studio's in a prototyping frenzy as it searches for a killer idea for its next game.

LEFT: This underwater adventure is one such concept – the player explores the depths in a yellow submarine.

"WE DECIDED TO MAKE A DIFFERENT COMPANY TO MANAGE EVERYTHING WHICH IS DEAD CELLS RELATED"





YOUR NEW BEST FRIEND

THE DEVS EXPLORE THE IDEA OF PLAYING WITH AN AI BUDDY

1 Many of these early concepts show a friendship between a robot and his loyal dog, which was going to be a central mechanic in early prototypes.

2 Motion Twin works in bright colour palettes. Partly because they're gorgeous, but also because the artists enjoy working with exciting colours every day.

3 At one point the game could have been set on a series of floating islands. This eventually gave way to a prototype where you play as a plane rather than a robot.

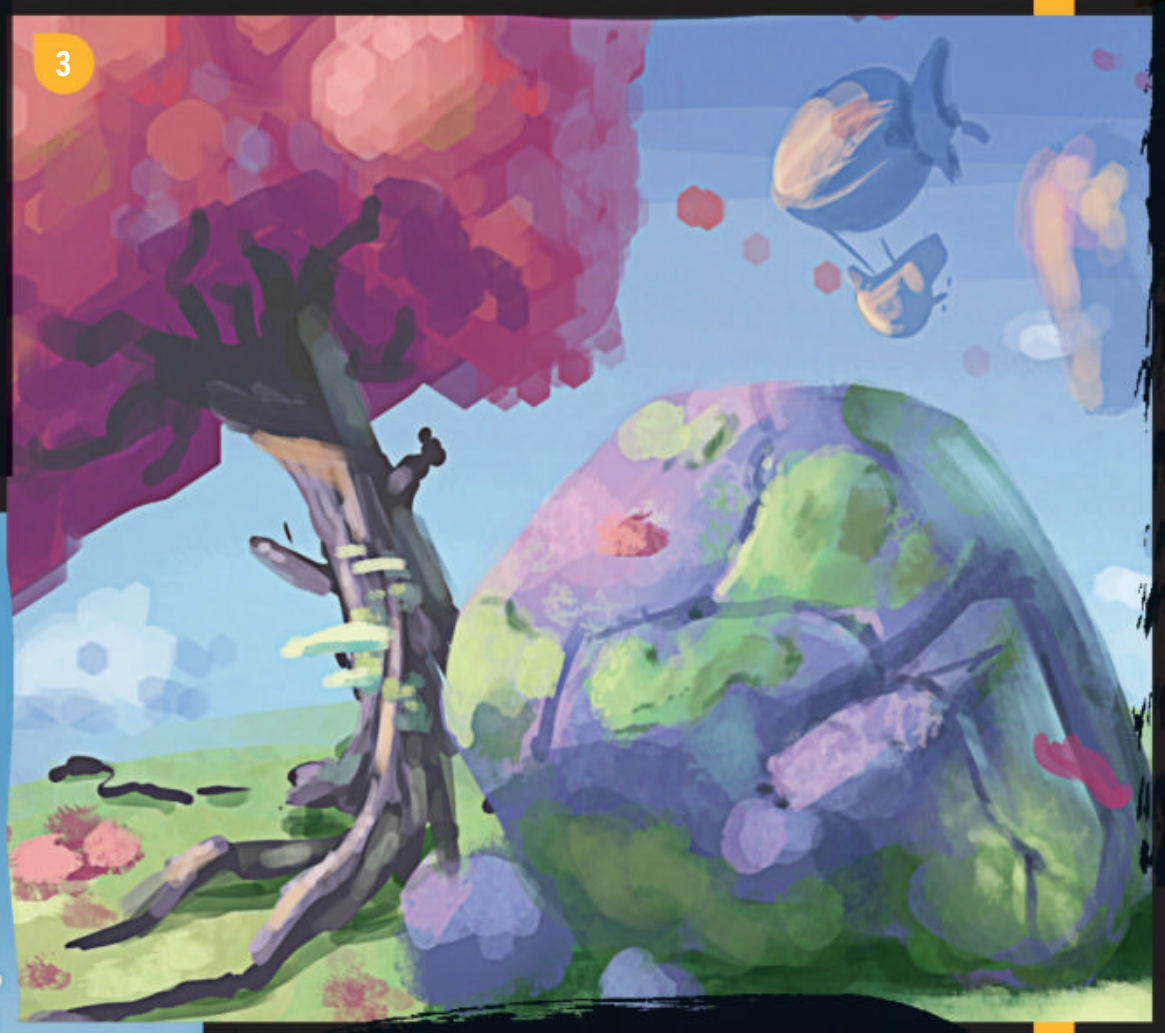
LINKED SOULS

THE COMPANIONSHIP IDEA MORPHS AS THE TEAM CONSIDER A NEW SCI-FI SETTING

1 Motion Twin is keen to do something different to *Dead Cells*' dark fantasy setting. The future provides a good break.

2 Instead of a dog, your wellbeing is tied to a companion in a shifted dimension. But the team reckon that it would be very difficult to create a meaningful bond between player and partner.

THE ARTISTS ENJOY WORKING WITH EXCITING COLOURS EVERY DAY



TO THE SKIES

THE FRIENDSHIP IDEA GIVES WAY TO OPEN FREEDOM

1 This image retains the idea of a humanoid playable character who can hop onto vessels to move between islands.

2 But what if you played as the plane instead? Here we see an obstacle that might appear in the open sky

3 Motion Twin created a playable version of the plane game and found the level design process particularly difficult.

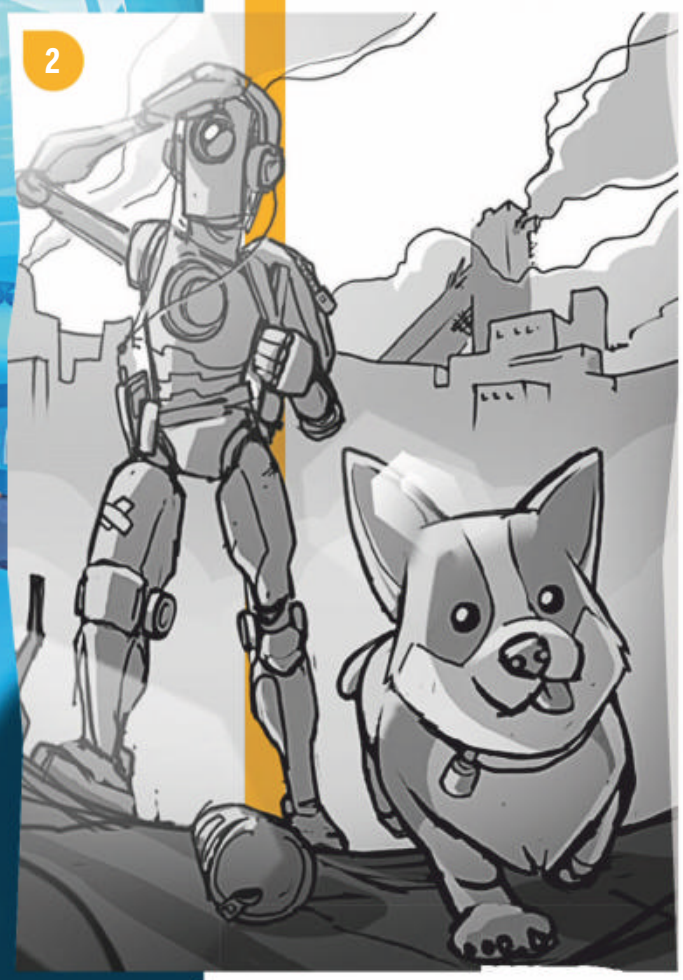
4 In the open air the player expects to be able to fly anywhere, and invisible walls feel too restrictive and unfair.

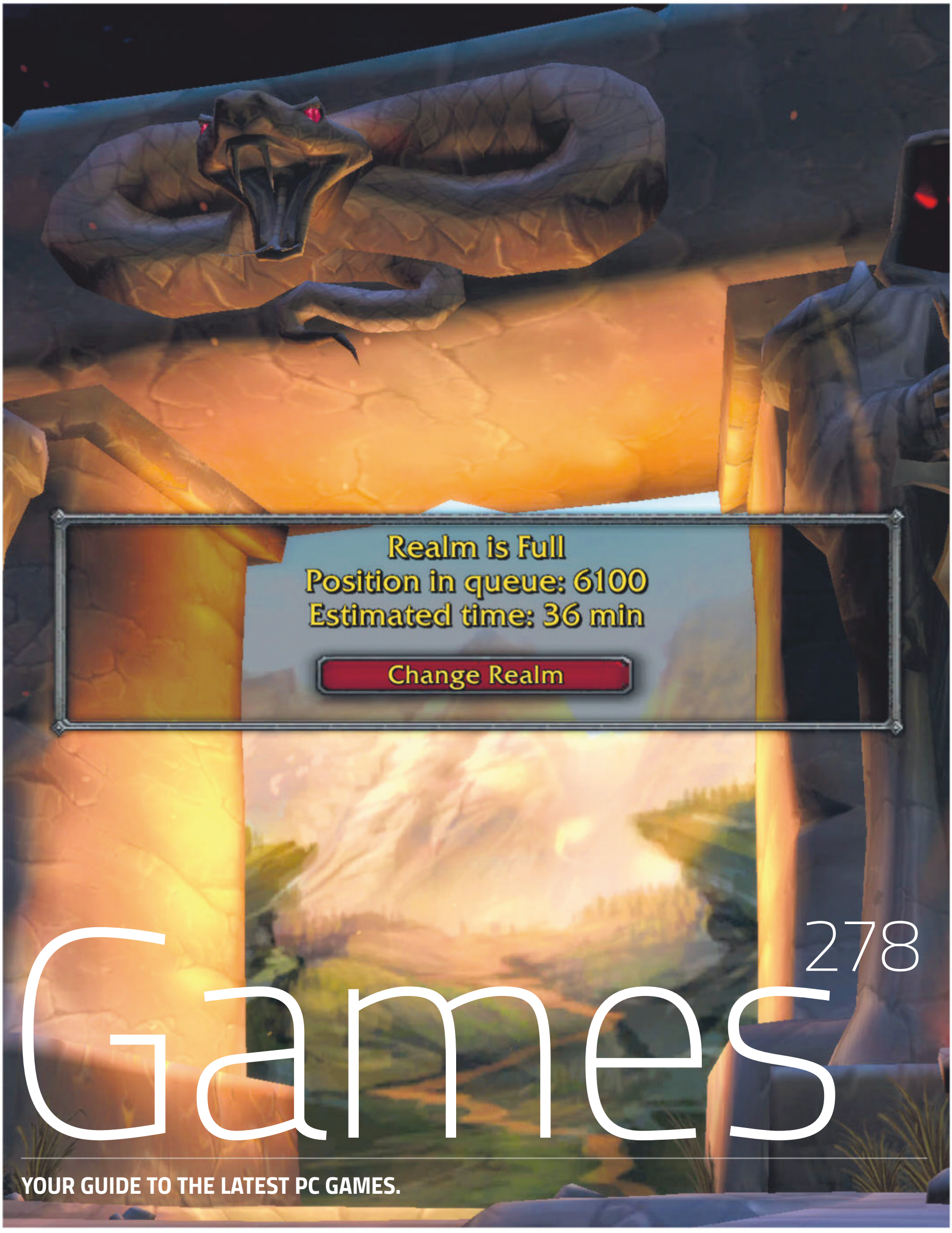
CONTRASTING CONCEPTS

MT'S ARTISTS BRING DIFFERENT PERSONALITIES TO EACH IDEA

1 Thomas Vasseur was the art director on *Dead Cells*. He brings a powerful colour palette and Japanese forms to the 'robot and his dog' concept.

2 Gwenaël Massé imagines a post apocalypse not too distant from Bethesda's *Fallout* series. Importantly, he also brings a very good corgi.





Games 278

YOUR GUIDE TO THE LATEST PC GAMES.

GAMES THIS ISSUE

63 CONTROL 66 ANCESTORS: THE HUMANKIND ODYSSEY 67 REBEL GALAXY OUTLAW 68 MAN OF MEDAN 69 REMNANT: FROM THE ASHES 70 KNIGHTS AND BIKES 71 HUNT: SHOWDOWN 72 WORLD OF WARCRAFT CLASSIC

SCORING SYSTEM

PCPP scores its games on a 1 to 10 scale. The higher, the better – though 10 is by no means a "perfect" game. We're not convinced such a thing exists, so consider a 10 a masterpiece of PC gaming, despite its inevitable flaws. A 5 is a decidedly average game; one that doesn't excel in any particular area, without being an affront to our senses – the ultimate in mediocrity. Below this, you'll start to find the games our reviewers suffered an aneurysm getting through; above it, the titles truly worth your time and money. And remember: a score is only a vague indication of quality. Always read the full review for the definitive opinion!

POWERED BY
REPUBLIC OF GAMERS

Control

Remedy's most bizarre and possibly best game yet.

DEVELOPER 505 GAMES • **PUBLISHER** REMEDY ENTERTAINMENT
www.controlgame.com

The omnipotent Finnish janitor of the Federal Bureau of Control really wants to go on vacation, but can't until I've vanquished his old nemesis, The Clog. In what we'll call the 'bottom' of The Oldest House, an impossible building in the middle of New York that's infinitely larger on the inside than the outside, The Clog takes up residence near the coolant pumps, a swirling mass of brown slop that moans like a T-Rex roaring bubbles into a glass of milk.

I shoot the wriggling tendrils peeking out of the body and the shit monster disappears down the drain to the tune of a toilet flushing. It's never explained, but I like it that way. It helps keep the mystery alive.

Control is an acrobatic third-person shooter set in an amorphous concrete dimension infested by the sanitised office culture of a 1960s-era government bureaucracy. Aside from a poo beast, you'll discover new powers and revisit areas of The Oldest House to find upgrades, secrets, and side missions, throwing bullets and random objects at bad guys in Remedy's best combat system yet.

The studio's taking a harder thwack at weird fiction than ever before. Despite a few weak characters and plot threads, it's a success. In Control, every conspiracy theory, ghost encounter, and alien abduction happened, just not quite for the reasons you'd expect. It's a collection of stories about seeing through the banality of everyday life, a story about language, mass media, and statecraft delivered with a dry sense of humour and no tether to reason.

I still don't understand it. But I don't need to. God bless this mess.

Headshot or light leaving our dimension?

WHY SHOULD I CARE?

+ You talk to plants.

+ Multipurpose building block guns are your shiz

+ Confusion is your friend

I spent most of the first hours reeling with confusion, writing down acronyms and pausing to let moments sink in before moving on. Control's narrative is outright inaccessible at first, but that's exactly what Remedy is going for. I still don't know what The Hiss are, why the Service Weapon chose Jesse, why everyone's cool with taking orders from a transdimensional 'Board' that speaks in mumbles emanating from an inverted triangle and whose speech translates into multiple, parallel sentences at once. It/They are/is confusing/unknowable and that's OK/acceptable/true.

Inanimate objects are imbued with godlike powers, the product of Altered World Events or strange phenomena that make up modern American folklore. The FBC visits these places and collects these objects for study in The Oldest House, the panopticon and petri dish they call home.

A floppy disk hurls debris and office supplies at my head. A fridge levels buildings unless someone looks at it 24/7. I accidentally let a rubber duck loose that harasses me, barking like a demonic dog from the corner of every room I enter, flitting away the moment I approach. Control is littered with mundane objects made fascinating and sinister, treating Jungian ideas of the collective subconscious and a touch of Baudrillard's hyperreality as the foundation for its paranormal logic. Folklore and language are the literal authors of truth. Finally, mainstream sci-fi that isn't spaceships and militarism and hot green men.

Jesse's story is similarly cryptic and weird, but compromised by a vapid personality and weak connections to the supporting cast. She's harbouring her own mystery, but her sheepish concealments keep her at a distance while her commentary too often

INEXPLICABLE

Jesse Faden shows up to the The Oldest House with mysterious motives, suddenly thrust into the role of director of the FBC. An Object of Power, a gun called the Service Weapon, chooses her, granting her the ability to wield the weapon and traverse The Oldest House without worry that The Hiss, another unexplainable entity that's invaded the FBC and has been turning its employees into glowing red monsters, will infect her mind. Control's a doozy.

THE SERVICE WEAPON'S MANY FORMS

Weapon types and behaviours explained.

GRIP
Type: Pistol
Your standard, dependable sidearm.

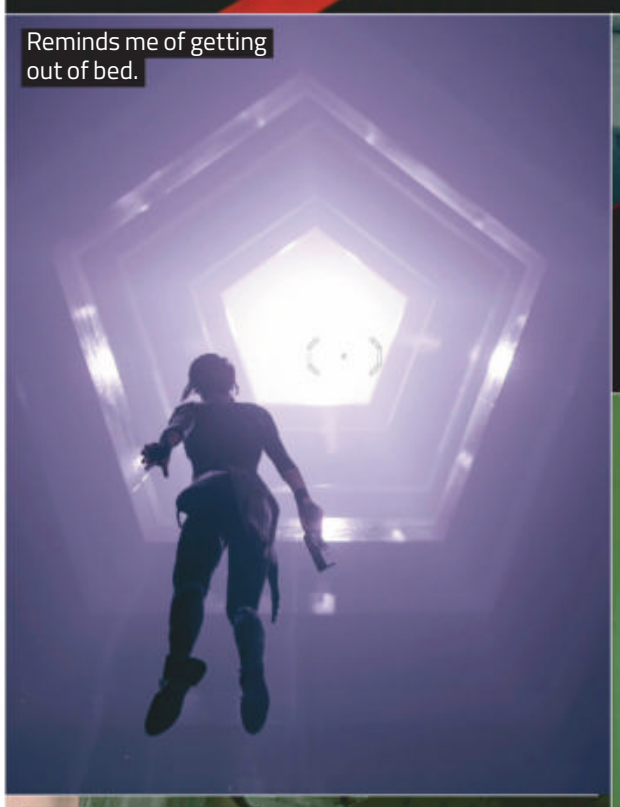
SHATTER
Type: Shotgun
Devastating at close range, with a wide blast.

CHARGE
Type: Grenade launcher
Blasts groups to little pieces.

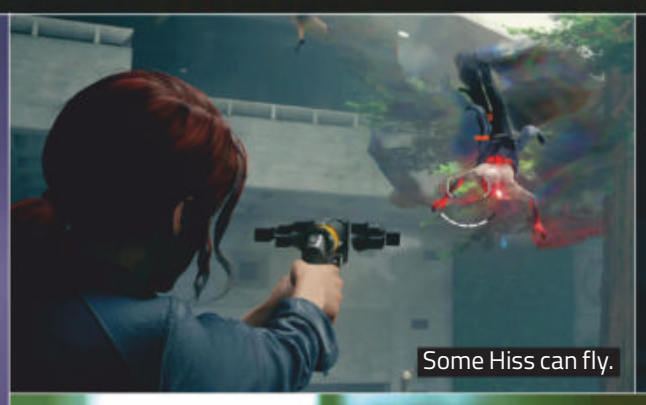
SPIN
Type: SMG
A great raw damage dealer, but runs out of juice fast.

PIERCE
Type: Sniper
Shots are slow, but slice through armour with ease.

What a waste of paper.

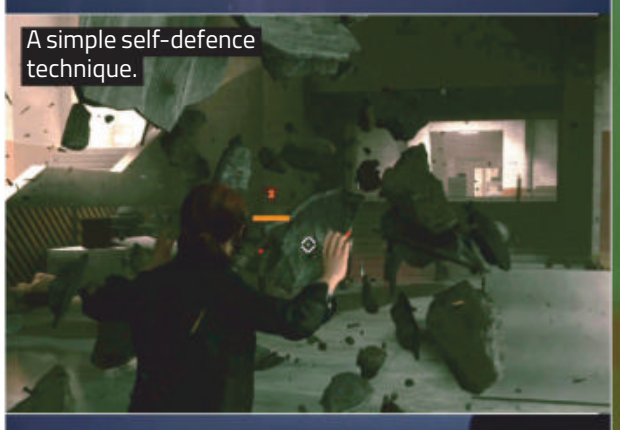


Reminds me of getting out of bed.

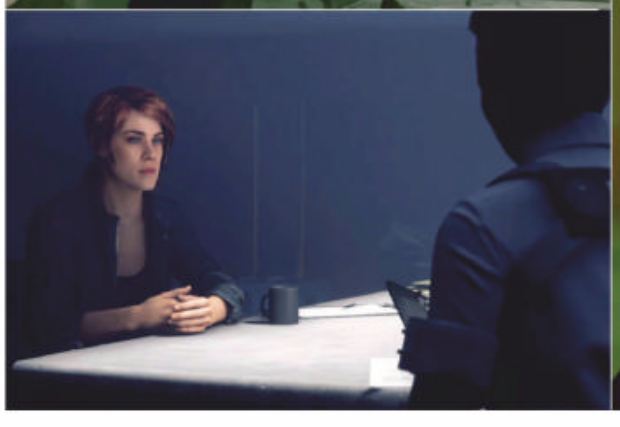


Some Hiss can fly.

Our friend, the janitor.



A simple self-defence technique.



mirrors my own. What the hell is happening, did that stapler talk to me, ad infinitum.

We're both baffled by the logic and hidden truths of the FBC and Oldest House, but those moments aren't used to give Jesse a chance to reveal who she is. Her personality never quite coalesces, though the manifold mysteries of the FBC told through confidential documents, audio logs, and FMVs do well to buoy the lack of character.

A lightswitch in a Butte, Montana bungalow teleports the user to an oceanside hotel somewhere in time and space, a sort of dimensional transit station. Altered Item case files tell stories about a picnic basket that attracts woodland creatures or a surfboard that gives anyone touching it an excess of confidence. Then there's a creepy puppet TV show the bleach-brained FBC put together to introduce kids to their research, replete with lingering gazes at the camera and sinister voicework. It's horrible! I love it.

It's a fascinating setting, but Jesse's family story about shared trauma and the effects of living in a media-driven world doesn't say much beyond how disorienting it is.

KEY CONCEPTS

Understanding the logic of **Control.**

AWE (ALTERED WORLD EVENT)
Phenomena that result in the creation of OOPs.

AI (ALTERED ITEM)
Objects with special powers due to AWEs.

OOP (OBJECT OF POWER)
AIs that imbue people with similar powers.

FBC (FEDERAL BUREAU OF CONTROL)
Oversees study of AIs & OOPs.

THE HISS
An alien and incomprehensible entity infecting FBC employees.

THE BOARD
A transdimensional triangle that commands all.

> "Levitating pulls errant objects into Jesse's orbit, like lazy little moons"

THE LAZY GUN

Control is best when it uses these heady concepts about language and reality as the basis for a set of wild stories. But it ends – after a wild head trip, of course – a little too abruptly, like it had just teed up those big ideas but forgot to swing. The arc doesn't feel complete or entirely fulfilling, as much fun as the ride is, though it's clearly setting up for a sequel, spinoff, or DLC somewhere in the Remedy-verse. Bring it on.

OK, so why is a coral reef growing out of the wall in the maintenance sector, and why does Jesse think it smells delicious? I don't know if I'm meant to reach the high ledge where I see the ocean floor growing quite yet, but I try anyway. I round the corner and clamber up some rocks where I chain Jesse's dash ability through the air and back around the corner, where I manage to hit the wall below the ledge at just the right point. She grabs it and pulls herself up. I find enemies too powerful for my low-grade abilities and guns, so I dip out. But now I have a new mystery to solve and a good reason to shoot some Hiss for upgrade points and currency to make new astral constructs (guns).

Control's shooting may be the last thing anyone will talk about after the credits roll – like I said, there's a rubber duck that harasses you – but it's Remedy's best yet.

Enemies drop health where they die and Jesse is so fragile that you have to constantly push the enemy position to stay alive, Doom 2016 style. It's propped up by smart interplay between the weapon system and extremely satisfying telekinetic abilities.

The Service Weapon morphs between two forms of your choosing, each representing a fairly standard videogame gun archetype. Ammo isn't a thing though, as 'magazines' are represented by energy. Empty the weapon and it'll recharge after a few seconds, a nice bit of encouragement to reposition or use a telekinetic ability, which have their own recharging energy bar.

It's energy bar ping-pong: shoot, use an ability, shoot, use an ability. In detail: I headshot a soldier with my shotty, leap into the air, dash up to the second floor, throw an industrial copier at the shielded guy at the back of the room, wing a few pistol shots at someone dashing between cover, summon the rubble around me as a shield to absorb the incoming rocket, then grab the next rocket with telekinesis and fling into an unlucky Hiss soldier. This one's strapped to a chair and floating around in the sky, a fellow telekinesis user. With their health low, I use mind control to turn them to my side. Telekinetic buds, tossing file cabinets around. Good times.

OFFICE DESTRUCTION

With a complete arsenal of abilities, I'm able to bounce around the big, multi-tiered arenas like Superman with a handgun permit. But before I found the dash and shield abilities, and before I finished enough missions to upgrade my health and energy reserves, I was too often pinned to a corner and easily overwhelmed. Early combat encounters are bland and frustrating compared to what follows.

When you're fully powered-up, Remedy's love of flying objects comes to the fore. Every dash sends papers fluttering, coffee cups crashing. Jesse can toss any object in the environment with her brain, turning banal office spaces and retro futurist underground labs into disaster areas. Levitating pulls errant objects into Jesse's orbit, like lazy little moons: staplers, rubble, pencils, printers, corpses. Max Payne would be proud.

But the momentum peters out right when things come together. Chasing every skill upgrade through endgame sidequests (the credits aren't the end-end) too often climaxes in boss encounters that are conceptually interesting but no fun to fight. The upgrades are too simple to feel worth chasing anyway. Given how playful the combat already is, I would've loved to see some comparably creative deviations in the skill tree. As it stands, it's just killing stuff to do what you already do more efficiently. Feels great, but doesn't change much.

And yet, my second lap of The Oldest House is still unearthing new discoveries, entire wings I missed at first, more Altered Items playing clever tricks, hidden bosses, and secret areas.

Control's combat is slow to start and its overarching story doesn't go far enough, but it's a gorgeous font of wonders and poop monsters and wild physics unlike anything I've played in recent memory.

JAMES DAVENPORT PC

VERDICT:

Control's thin protagonist and abrupt ending are propped up by mystery and room-destroying combat.

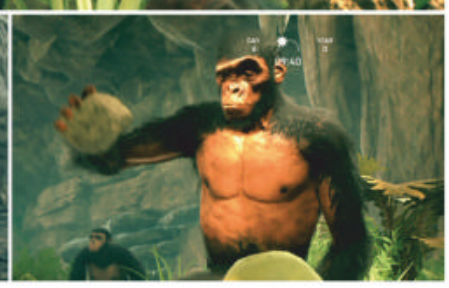
8

Ancestors: The Humankind Odyssey

Evolution by repetition in survival game.

DEVELOPER PANACHE DIGITAL GAMES • **PUBLISHER** PRIVATE DIVISION
ancestorsgame.com

Different plants provide different buffs.



The aroused moaning of the prehistoric ape I'm trying to bang is getting to be a bit much. She's really into this backrub I'm giving her, but I'm having trouble feeling the mood myself. We're squatting in the freezing rain, my leg is broken, I have an orphaned toddler clinging to my back, and another member of my clan is enthusiastically picking his nose in my sightline. It's not even a tiny bit romantic, but hey – I'm trying to save our species.

Listening to an ape get horny as I rub her hairy back isn't the only thing I'm not keen on in third-person survival game Ancestors: The Humankind Odyssey. It begins 10 million years in the past with you controlling the leader of a small clan of hominids – the distant precursors to human beings that eventually evolved, invented computers, developed games about ancient hominids, and wrote reviews about them. Like evolution itself, Ancestors is slow, often uneventful, and a frequently frustrating struggle.

MONKEYSHINES

An average day in Ancestors is spent exploring the forests of Africa, using your senses to examine your surroundings. But the novelty of detecting something by sound or scent wears off almost immediately due to repetition and awkward controls. When I want to use my senses to investigate something, I need to stop moving completely. Then I need to make sure I'm not close to any rock, stick, plant, or food item or I'll get the prompt to interact with that item instead of the prompts to use my senses, resulting in a lot of awkward shuffling around. Even just trying to target another hominid for an interaction is a fiddly annoyancee.

There's naturally lots of climbing and jumping around on the cliffs and trees, which can be exhilarating when making long leaps to snag vines and branches, but much less fun when you miss. Most expeditions wind up with me plummeting to the ground at least once and shattering my leg. The finer movements of my hominid are even more difficult, like trying to transition from a vertical tree trunk to a horizontal branch, which takes a lot of manoeuvring and re-adjusting.

WHY SHOULD I CARE?

+ Ook?

+ Ook.

STICKS AND STONES

If you survive and progress long enough, you can advance time hundreds of thousands of years at once and continue playing with the successors of your lineage. Your clan's experiences and knowledge are matched against science's estimation of the real thing when you make these evolutionary leaps. I was pretty stoked that my first clan, the Chunky Monkeys, was evolving faster than hominids actually did, mainly because I'd figured out how to bash things with chunks of obsidian earlier than my real-life ancestors did.

Alas, the lineage of the Chunky Monkeys was wiped out about a million years later after losing a few fights and running out of fertile females. Starting Ancestors over again from the beginning is a major drag, having to re-discover every leaf and plant I've already long since grown tired of gathering, sniffing, and tasting – not to mention all those backrubs. I haven't finished Ancestors yet, but I've had enough of it. *CHRIS LIVINGSTON* PC

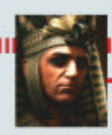
LEVELUTION

How have we evolved as a video game species since the time of Ancestors?

10 million BC
Ancestors

10,000 BC
Far Cry Primal

2,500 BC
Civilization 6


49 BC
Assassin's Creed Origins

1987 AD
Leisure Suit Larry

VERDICT:

Ancestors: The Humankind Odyssey is a novel premise wrapped in an awkward and repetitive survival slog.

6

Rebel Galaxy Outlaw

Makes up in style what it lacks in depth.

DEVELOPER DOUBLE DAMAGE GAMES • **PUBLISHER** DOUBLE DAMAGE GAMES
rebel-galaxy.com

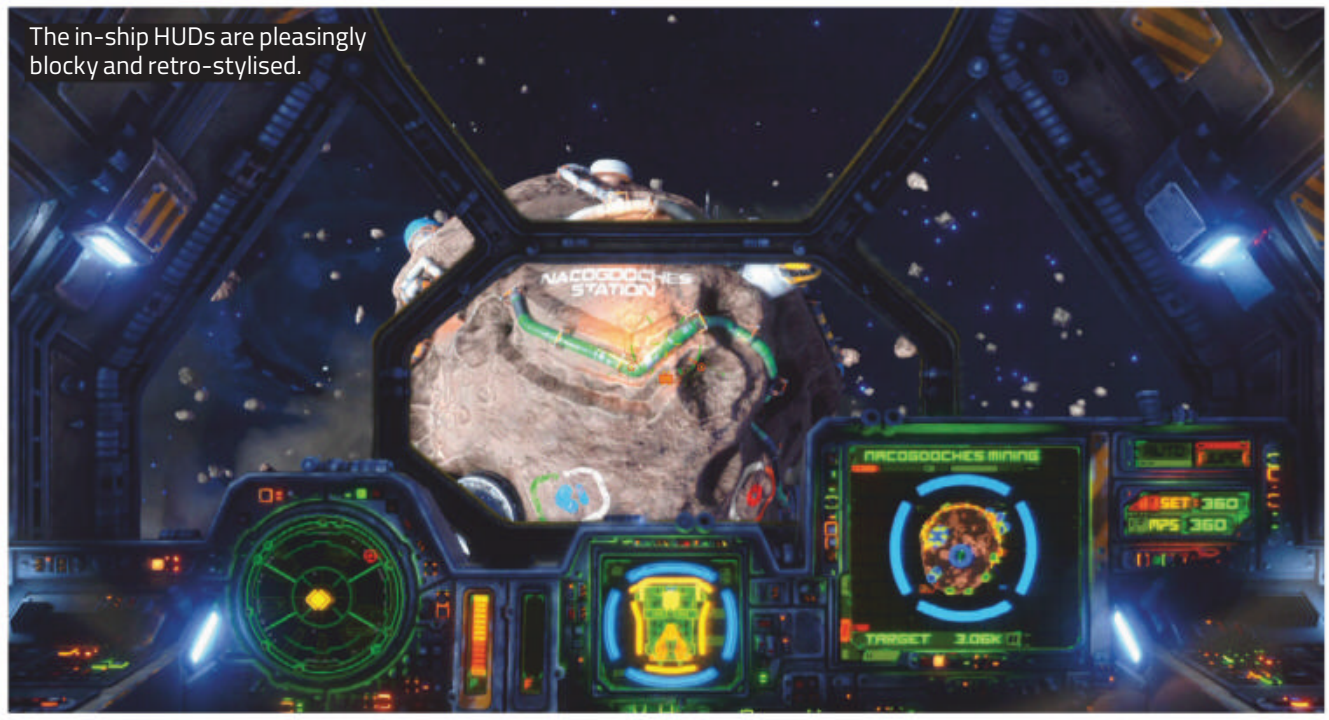
The boundless promise of space exploration is a precarious asteroid field for a developer to navigate. It takes the luxuries of time and funding for galaxies like those of Elite Dangerous or No Man's Sky to reach their potential. But if you're an indie developer bereft of those resources, then it's vital to know your limits – to condense the cosmos into something manageable, lest your game get swallowed up by its seductive vastness.

Rebel Galaxy Outlaw knows its limits, restricting its galaxy to 40-odd solar systems named after cities in the US. Its guitar-twanging rock soundtrack and vibrant colours give it the tone of a punky western. It's thrifty where it needs to be, and does a commendable job of embellishing its relatively rote gameplay loop with presentational swagger.

Driving the game's spunky spirit is the protagonist Juno, a tough vagabond on the trail of the people who killed her husband and tried to knock her off too. You gain most of your intel by chatting with the patrons of bars dotted around the various space stations of the cosmos.

There's a pleasing air of shadiness about these haunts as everyone seems to know something for the right price, and there are mini-games such as pool, slots and arcade machines that you can kick back with after an expedition into not-so-deep space. Unfortunately, you don't get to walk around the bars and stations, instead interacting only through menus and in-game cutscenes. This is an indie game, lest you forget.

Things get tough out there in the coruscating cosmos. It may look like a neon-tinged music video set in the Guardians Of The Galaxy universe, but it can be unforgiving, and I find myself dying often in my ungainly cargo container of a starting ship.



The in-ship HUDs are pleasingly blocky and retro-stylised.

WHY SHOULD I CARE?

+ Spaaaace!
+ You still miss Firefly
+ Gotta play something until Squadron 42 comes out

Combat sticks within the norm of dogfighting space sims, with a few well-advised convenience controls and snippets of flair raising it a little bit beyond the mean. You have the usual assortment of blippy lasers and blasty missiles, but one of the better features is auto-follow, activated by holding the left trigger. Not only is this great for orientation, but turn up your thrusters and you can really get up close to enemy ships, chasing them down as you dart between clusters of space debris and freighters.

The structure of missions will also be familiar to those who have played other space sims. You chat to bar patrons or go to mission boards, and take on a variety of reconnaissance, combat, and delivery expeditions.

The main story quest is a slightly more verbose twist on the above, as you get pulled into a plot of corporate greed and underhand dealings, but the writing doesn't quite invest you in it.

SPACE TRUCKERS

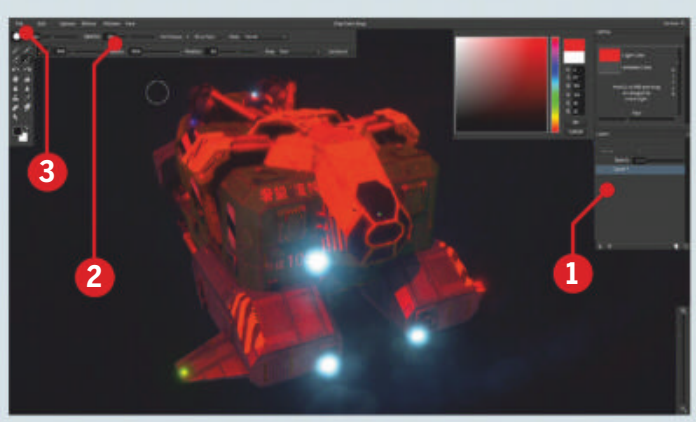
There are hints that you can play Rebel Galaxy Outlaw as a plucky trading vessel, with a dynamic fluctuating market that lets you trade goods, as well as the higher-risk activity of ferrying counterfeit goods to those willing to buy them. But realistically, you'll spend the bulk of your spacefaring in combat. This can get a little repetitive, but with the carrot of ship upgrades and better weapons dangling over you, it offers enough incentive to keep pushing on.

Rebel Galaxy Outlaw lives up to its name among space sims. It's spirited, good-looking and vibrant, effectively spraying several cans of blue and pink graffiti over the existing space sim template you're used to.

ROBERT ZAK PC

I MADE THIS *Design your own ships to take into space.*

Rebel Galaxy Outlaw **pretty much offers a light Photoshop suite when it comes to designing your own spaceships.**



1 LAYERS
Divvy up your work, see specific layers in isolation, and delude yourself that you've a talent for graphic design.

2 OPACITY
Opacity changes the intensity of your paint tool, allowing for more subtle effects than just plain old splodges.

3 3D PRINTING
Once your ship is painted you can even print a 3D model of it... if you have a 3D printer knocking around.

VERDICT:

Rebel Galaxy Outlaw is a lively space-western that sacrifices other games' scale in favour of more style.

8

Man of Medan

Makes cliched horror feel fresh again.

DEVELOPER SUPERMASSIVE GAMES • **PUBLISHER** BANDAI NAMCO
bandainamcoent.com

Man of Medan isn't particularly scary. If it were a movie, it'd be the kind that releases direct-to-video, one of those schlocky DVDs lining the convenience store displays. The usual character archetypes are there: the nerd, the hunk, the blonde, the stranger, the horny creep that no one should put up with but do because at least one death should be cathartic. Queue up the ghost ship, pirates, and cheap jump scares galore.

As a film, it would be fun, but familiar and forgettable. But as co-op adventure game, Man of Medan is unparalleled. Think of it like a movie where you take control of one character at a time, oscillating between quicktime action scenes and dialogue sequences. Occasionally you'll get time to look for story clues, tools, and soak in the setting.

Early into my online co-op playthrough, my coworker Joanna and I coerce our ship captain into letting us explore a sunken plane at the bottom of the ocean, but we don't play two characters in the same scene. We play different scenes simultaneously.

In mine, a young couple explores the underwater wreck. As Julia, I reject my insecure partner's relationship questions and stick to the matter at hand – the skeletons chilling in the plane's disintegrating chassis. I mash X as part of a surprise quicktime event to avoid cutting my thigh on a sharp edge. Joanna laughs at my shrill yip over Discord. Later I'll scream "LEECHES!" louder than I ever have and Joanna's laughter matches the volume. The jump scares might be cheap and plentiful, but with a friend they're hilarious.

WHY SHOULD I CARE?

+ You like a good scare
+ You like good scares with others
+ LEECHES!

Meanwhile, Joanna's playing as Captain Fliss up on the ship, cooly rejecting Conrad's every pickup line. (They get to second base in my solo run.) But I only know what Joanna tells me, so when she says a boat is approaching our own, I worry. I really worry when the boat speeds off and drags the diver line across the plane, knocking the cockpit off.

Imagine how I feel when I see two explosions up top as I surface. Do I swim up and risk giving Julia the bends or slowly depressurise with her neurotic boyfriend? At least he didn't just ask Julia to marry him this time. The next playthrough, he does, and I send Julia up immediately.

It's my turn to listen to Joanna panic while juggling her own choices or button prompts – I'm in the dark. She eventually gets some vital info across that informs my next move.

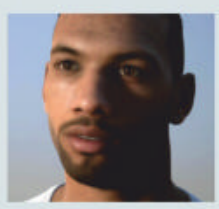
SUMATRA SISTER

It's not as fun as co-op, but Man of Medan is still surprising alone. My solo story ended with a completely different cast and lasting consequences, but I don't want to poke around the same three-ish hour long B-movie to see every outcome. The characters are too cliched and the plot too simple. But as an ambient experience played over time, Man of Medan is worth returning to for the social experience. What kind of incompetent hot people death-cocktail can we make... *JAMES DAVENPORT* PC

MEET THE TEAM

***A who's who and who can be whom in* Man of Medan**

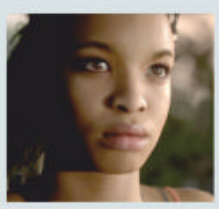
JULIA
Rich kid hungry for adventure or prime Darwin Award candidate?



ALEX
Arrogant hunk or affable hunk? Alex is Julia's boyfriend. He may propose.

BRAD
Total loser dweeb or underdog hero, Brad is Alex's scrawny brother.

CONRAD
Horny creep or saint with an ego, Julia's party boy sibling.



FLISS
Is she a stern law-abiding captain or Cool Teacher That Drinks?

VERDICT:
Man of Medan tells a familiar horror b-movie story, but in a fascinating way that's even moreso with a partner.

8

Remnant: From the Ashes

A surprisingly nourishing mechanical soup.

DEVELOPER GUNFIRE GAMES • **PUBLISHER** PERFECT WORLD
www.remnantgame.com/en

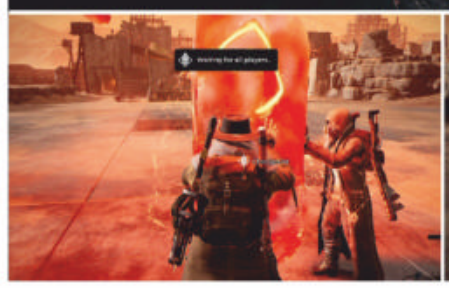
This odd genre mash-up looks like it was coughed out by a game development algorithm. It's equal parts a third-person looter-shooter and a Dark Souls-inspired boss rush, with a cooperative emphasis and a dynamically generated campaign. Stylistically it's inspired by fantasy, science-fiction, Westerns, post-apocalyptic worlds and various kinds of horror fiction. Even the title reads like it was generated by a Twitter bot.

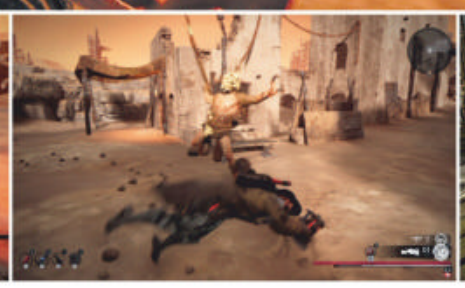
While Remnant resembles a cover shooter, in practice it plays much more like Dark Souls from an over-the-shoulder perspective. Basic enemies are aggressive and hit hard, so to stay alive for any length of time you need to evade their attacks. Gradually, you pick your way through the ruins, moving between glowing crystals analogous to Dark Souls' bonfires and fighting creatively designed bosses. It's fine, but nothing stands out about the design.

Then Remnant conjures a castle out of the sky, and the whole game becomes far more interesting. Suddenly, you're no longer wandering the ruins of Earth. You're on Rhom, a desert planet populated by spear-chucking cavemen, living in the shadow of ancient obsidian obelisks. It's the beginning of a bonkers pan-dimensional adventure, and where the game's systems begin to pay off.

Unlike The Division, which drip-feeds the player incrementally better guns, Remnant's loot is less common and more tailored. The real treasures are dropped by bosses, powerful items which can be taken back to Ward 13 to craft new weapons and weapon mods. These weapons are as unique as the bosses used to make them. After defeating a fire-spitting demon called Singe, I craft a submachine gun that fires incendiary bullets as a default.

Stop, drop and die.





WHY SHOULD I CARE?

+ Dark Souls with guns sounds cool
+ You dig on loot
+ Weirdness is your co-pilot

BOSS ENCOUNTERS

Remnant's most unique feature is its dynamically generated campaign. Environments can be laid out in different ways and dungeons located in different places. Similarly, each boss encounter has several possible variants. I played through the first half of Remnant twice, and in the second run, Singe was replaced by the Ent, a giant tree with a face like Cthulhu. It's a clever way of encouraging you to invest in other players' campaigns, and arguably better design than having a massive, shared world you only explore once.

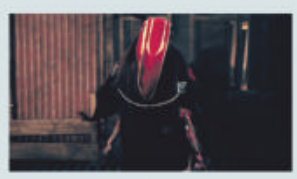
Elsewhere, although Remnant's dimension-hopping makes for a fun adventure, the game struggles to tie its threads together narratively. Remnant borrows Dark Souls' approach to storytelling, using item descriptions and fragmented conversations with NPCs to build its lore. But Dark Souls' world is cogent, consistent, and painstakingly built. Remnant too often feels like it's making things up as it goes along.

I'd happily play more of Remnant. Its strange worlds, robust challenge, and bespoke loot make it a refreshing alternative to the drab militarism of The Division. *RICK LANE* PC

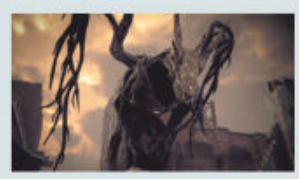
KNOW YOUR ENEMY Remnant *has several different enemy tiers, and knowing what you're up against is key to survival.*

MOB
Basic enemies that populate the world. Most have both a melee and ranged attack, so you need to stay sharp.

SPECIAL ENEMIES
These enemies spawn randomly as you explore, there's around four or five types of special enemy per world.



MINI-BOSS
These are souped up versions of basic and special enemies. Some of these are optional, others are not.



BOSS
Unique enemies that you'll fight at the end of a world. They're tough, powerful, and often involve a special gimmick.

VERDICT:

A flawed but fascinating hybrid, Remnant: From the Ashes is a looter-shooter that's charged with potential.

7

Knights and Bikes

A game of childlike curiosity and friendship.

DEVELOPER FOAM SWORD • **PUBLISHER** DOUBLE FINE
www.foamswordgames.com

If your childhood was anything like mine, you would've spent an inordinate amount of time riding a bicycle. I rode my bike into town to trade in games at an indie game store, cycled over to a nearby field to play football with my mates, and generally just rode my bike to ride my bike. I would peddle for miles because… well, what better way to spend time with your friends, away from the prying eyes of parents and other adults?

Knights And Bikes taps into this childhood nostalgia with a charming cooperative adventure about a burgeoning friendship that also happens to include knights, bikes, curses, buried treasure, a goose named Honkers, and eating scones with cream on top and jam on the bottom.

It takes place on the fictional British island of Penfurzy, which is based on the actual British county of Cornwall, located on the rugged southwestern tip of the English coast. Anyone who's been to an English seaside town will feel right at home in Penfurzy, what with all the pasty shops, caravan parks, and flocks of seagulls looking to snatch your chips.

If you have no idea what I'm talking about, fear not, Knights And Bikes' evocative art style will effortlessly draw you into its vibrant world. The lovingly hand-painted art design is reminiscent of Media Molecule's Tearaway in some aspects – which makes sense when you consider one of its creators worked at the famed British studio.

You know you're in trouble when the tea cups come alive.

WHY SHOULD I CARE?

+ Cute art spins your wheels

+ You miss nostalgia

+ You've always wanted to see Cornwall

Characters are seemingly made from paper cutouts, and there's a tangible sense that a child's fingerprints are imprinted in each brush of paint and scribble of crayon without it ever coming across like an adult's poor imitation of a child's drawings.

The wild imaginations of protagonist's Demelza and Nessa are reflected in their surroundings by this expressive art style, and this informs parts of the story as well. Demelza is a native of Penfurzy whereas Nessa initially sets foot on the island at the beginning of the game. The pair quickly strike up a friendship despite their differences, embarking on an adventure revolving around ancient knights, a terrifying curse, and the hidden treasure any good escapade needs to propel it forwards. Yet the real heart of the narrative resides in the two girls' growing bond. Knights And Bikes tells a heartfelt tale that's wonderfully written, touching on subjects such as family, grief, the concept of home, and how each of these affect the girls' relationship.

Being a co-op game, there's also synergy between both character's items. For instance, any puddles Nessa creates can be electrified by Demelza's Power Glove to shock enemies or create electric links to solve puzzles. (If you're playing alone, the AI can more than handle itself.)

DRAWING CONCLUSIONS

Outside of combat you'll spend a fair amount of time traversing Penfurzy on bikes. You can customise them with things like sparkly streamers and gold reflectors to add some flash. There are also upgrades like a sporty mudguard that allow access to previously inaccessible areas.

The only problems with Knights and Bikes stem from its eight hour playtime. Combat is uncomplicated yet fun, but it doesn't evolve enough to remain engaging throughout. There's also a moment where it feels like it reaches a conclusion only to drag on for another 45 minutes.

Despite these issues, it's clear why Double Fine decided to publish Knights And Bikes. It's a perfect fit among the studio's own output, telling a well-written tale with a beautiful art style.

It's worth it for the story alone, but unlike my childhood bike rides, the journey to the end isn't as riveting as it could've been. *RICHARD WAKELING* PC

STRANGER THINGS

***Everything 80s about* Knights And Bikes**

- Inspired by The Goonies
- Boomboxes
- Cassette tapes
- A Power Glove
- CRT TVs
- Synth music
- Laser tag
- Kids given free rein to wander off

VERDICT:
Knights And Bikes tells a touching, albeit overlong, coming-of-age story about friendship and grief.

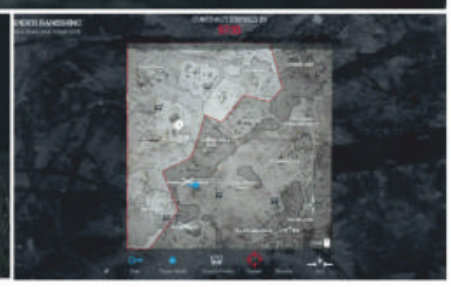
8

Hunt: Showdown

Fear both the living and the dead.

DEVELOPER CRYTEK • **PUBLISHER** CRYTEK
www.huntshowdown.com

Even the shambling zombie grunts can pose a real threat in a swarm.



In this multiplayer shooter you don't win, you survive. After the tutorial, I was already on edge and sweaty. Nearly two-dozen hours later, I'm coming out of every round much the same, only with added exhilaration at my near-deaths, kills, and cleverly executed traps. Crytek's merging of survival horror and battle royale creates an intense FPS whose years in the making have produced a strong foundation, only let down by a current lack of content.

Hunt: Showdown is a swampland shoot-'em-up that blends bleak horror, wild west shootouts, and careful investigation together to produce something that's remarkably distinct. The basics are familiar – players choose a loadout, spawn on a marshy patch of dirt and vie for supremacy. The twist is you're not alone, as zombies and other ghouls prowl these knee-high lakes and abandoned cabins, and you're on a mission for one creature in particular. This is your bounty, and you have to gather clues to find their location.

Set in an alternate history 1890s, a horrifying force is invading through inter-world rifts, infecting people and animals and turning them into terrifying mutants. Framed by centuries of mythology from multiple sources, the titular hunters are those who dabble in the dark arts and hunt for sport and research. The weaponry is crass and archaic: revolvers, single-shot rifles and crossbows, all requiring manual reloads. Machetes and battle-axes are available, if you want to risk the intimacy, and makeshift bombs and bear-traps are handy in a bind.

My early forays are rough. At one point a demented canine chases me right into an Armored, a human-shaped thing with a tumorous outer shell, and in trying to escape I attract a group of hungry zombies and get promptly devoured. The immediate next round, I meet a similar fate after successfully getting the first of three clues I need for the bounty. Thankfully the perma-death is disabled until rank 15 so I don't lose all my loot – only my pride.

Gradually, I start to find my way, and understand Hunt: Showdown's allure. Bearing characteristics of a blend of Fortnite and Silent Hill, proficiency lies in harnessing skills inherent to both – the tenacity of a battle royale player combined with an intuition for desperate survival.

WHY SHOULD I CARE?

+ You're still not sick of zombies

+ You cannot wait for RDR2 on PC

+ You just want to shoot some varmints

IN THE MUD

When you find the three clues, detectable using special vision called Dark Sight, you get the bounty's exact co-ordinates. Then, if you kill the target in a one-on-one, or two-on-one or three depending on your group, you have to get to an extraction point at the edge of the map for full completion. In Hunt: Showdown, winning is escaping.

This inversion of the standard battle royale formula is simple but deeply effective. It changes the whole complexion. Encounters against other players are more tactile, sometimes coming with unspoken agreements. I help a struggling rival kill a Hive – poisonous wretch – and after we just stare at each other briefly and part ways.

Up to three players can enter together. I mostly play solo – in-game communication is limited and I prefer not having to worry about or rely on anyone. Alone, I can slip by shoot-outs with relative ease, letting opponents wear themselves out. The mix of mossy quagmire, high-grass forest and timber village allows a variety of approaches once you figure out the landscape. Hunt: Showdown's biggest issue is that, by the time you've orientated yourself to the bayou's hideouts and passageways and found a groove with your roster of hunters, a grind sets in quick. The two swampy maps get repetitive, as does the short list of weapons and three available bounties. After a time the only substantial unlockables are lore, which isn't enough to sustain my interest. It all just feels a bit lacking, especially given the price-point. That said, new options, including a second map, are in the pipeline, and I'm willing to get back on the hunt once they arrive. *ANTHONY MCGLYNN* PC

VERDICT:

Hunt: Showdown is a clever, hard-nosed FPS that doesn't have enough substance to be truly essential.

7

World of Warcraft Classic

Fifteen years later, WoW is still an epic adventure.

DEVELOPER BLIZZARD ENTERTAINMENT • **PUBLISHER** BLIZZARD ENTERTAINMENT
worldofwarcraft.com

Classic is a full recreation of World of Warcraft as it was at launch, or not long after – a sort of digital time machine that lives alongside the modern version. It's a gruelling and often frustrating experience, but it's also helped me rediscover why I loved Warcraft in the first place.

BETTER TOGETHER

Rose-tinted nostalgia can often be deceiving, but Classic proves that people are right to spend so much time fawning over that pivotal era of WoW's early years.

That's a stark contrast to the latest expansion, Battle for Azeroth, where I'm so powerful that I can accomplish almost everything alone except dungeons and raids that mandate I play with a group. Even then, I'm provided with tools to automatically match me with a group of strangers who usually hail from other servers. Natural opportunities to make friends have become few and far between in that version of Azeroth, but they're everywhere in Classic.

The trade-off is that Classic is an enormous investment of time with no guaranteed reward. I can spend an hour searching for a group to run a dungeon, only to have everything fall apart if our team can't coordinate properly. But I actually prefer just how intimidating this Classic version of Azeroth feels. There's a renewed sense of danger and adventure to zones that I've already spent hundreds of hours exploring, and it requires that I pay attention to my surroundings at all times unless I want to become dinner to a family of panthers. It makes Azeroth feel new.

It's just a shame that questing in Classic is such hot garbage. It's the best source of experience points, but many zones have too few quests and they all feel like enormous chores. Killing 12 boars in an open field isn't all that fun, especially when the drop rate on the item needed for the quest is cruelly low. Times like these make me wish I was my level 120 demon hunter so I could round up dozens of boars and slaughter them all at once.

Though I like how challenging Classic is, there are definitely times when it feels downtright unfair. Quests that involve braving monster-filled caves are a nightmare unless you have a friend to help because the enemy density is often too high, making it easy to pull a pack of gnolls by accident. It's such slow going that sometimes by the time I reach my objective, all the enemies have respawned behind me.

I have often died right next to an enemy so that when I resurrect it'll immediately attack me again and kill me. My only option in these moments is to continually run back to my corpse from the graveyard and resurrect and run for the exit. Rinse and repeat until I'm safe.

Though this oppressive danger can suck if I'm all alone, it emphasises the need to group up with other players. In the 30 hours I've spent playing (not including the thousands I've spent in modern WoW and on private vanilla servers), I've had to join forces with countless people to stay alive.

Being a part of this weird second zeitgeist is what's made my return to Classic so magical. The infamous Barrens chat is back to its usual filthy nonsense, Hillsbrad Foothills is a bloodbath of open-world PVP, and major cities are often full of players offering to weave cloth bags to expand players' inventory space at no extra charge. Playing Classic is like participating in a medieval fair or civil war reenactment – only this time we're collectively roleplaying what it felt like to first discover World of Warcraft 15 years ago when the internet wasn't shit.

SLOG OF WAR

Even if the community and social aspects are fun, I do have to warn you that there many punishing parts of Classic that I had forgotten about. When I die in a dungeon, for example, I don't start at the beginning like I do in modern WoW but all the way at the nearest graveyard outside. It turns a 30 second run back to my body to one that can exceed three minutes – an infuriating trek if my group is struggling with a boss.

These rough edges, along with the awful quest system, really scrape and bruise, but they're each an inseparable part of what made World of Warcraft the phenomenon it eventually became – a once-bizarre and mostly bloated MMO that has little to no respect for my free time but is capable of forging relationships within its crucible.

Compared to modern WoW, which desperately strives to be constantly fun and convenient, I prefer Classic – at least for now.

The enduring genius of WoW Classic's design (shared by other MMOs like EVE Online) is that it's okay to frustrate and piss players off every now and again. It's what initially helped WoW transcend from mere game to something altogether different. No grand adventure is always sunshine and rainbows, and if I get deep into a dungeon and forgot to bring enough ammo, the only person to blame is myself.

CLASS ACT

World of Warcraft Classic is still the exact same MMO I remembered losing so many nights to as a teenager, and 15 years later returning to it is as fun and as frustrating as I'd hoped it would be.
STEVEN MESSNER PC

WHY SHOULD I CARE?

+ You want a challenge again
+ Your want the old talents
+ You think dungeons should be hard

> "Rose-tinted nostalgia can often be deceiving, but Classic proves that people are right to spend so much time fawning over that pivotal era of WoW's early years."

VERDICT:

WoW Classic's uncanny ability to bring players together and immerse them in adventure hasn't aged a day at all.

8

Caves can be deadly unless you bring a friend.

Other players are eager to chat if you say hi.

Ironforge is a sight that never gets old.

Tech 278

YOUR GUIDE TO PC GAMING HARDWARE.

PC PowerPlay POWER AWARD

Our Power Award is given to products that are best in class no matter your budget.

PC PowerPlay SMART BUY

Our Smart Buy Award goes to products that balance performance with price tag.

GEAR THIS ISSUE

075 RTX 2080 SUPER 078 PERIPHERAL ROUNDUP
086 THERMALTAKE S500 087 ACER PREDATOR X35
088 AMD RYZEN 3

THE PCPP TESTBENCH

CPU INTEL I7 7700K *intel.com.au*
MOBO ASUS Z270 ROG CROSSHAIR VI HERO *asus.com.au*
RAM 2 X BALLISTIX 8GB DDR4-3200 *crucial.com*
PSU CORSAIR 850W PSU *corsair.com*
COOLING H105 CORSAIR COOLER *www.corsair.com.au*

Graphics Cards

A better RTX 2080.

Hot on the heels of the RTX 2060 Super and 2070 Super comes the RTX 2080 Super. It's the third and final Super card that Nvidia plans to release. The 2060 and 2070 Supers (reviewed in APC 471) were released to counter the challenge of AMD's Navi GPU, but had the additional effect of leaving the 2080 uncomfortably close in performance to the 2070 Super. The RTX 2080 Super unlocks the full capabilities of the TU104 GPU in order to keep it comfortably ahead of AMD as well as achieving the rebalancing of the lineup that Nvidia needed. As the 2080 Ti sits unchallenged at the top of the product stack, it's unlikely we'll ever see a 2080 Ti Super.

> As you'll see in our reviews, the 2080 Super is exactly that, the 2080, but a bit better.

The original RTX 2080 is equipped with the TU104 GPU with 2,944 of the maximum 3,072 cores unlocked. The RTX 2080 Super comes with all 3072 cores unlocked. Further resources are also available, including 384 Tensor cores and 48 RT cores (compared to the original's 368 and 46). The second major improvement is the inclusion of faster GDDR6 memory rated at 15.5GB/s compared to the 14 GB/s of the original, a handy 10 percent gain. Finally the 2080 Super comes with higher clock speeds. The base GPU is capable of boosting to 1815MHz compared to the 1710MHz of the original 2080. So, we've got more shaders, more bandwidth and faster clocks. It's not revolutionary, but when you're starting with strong base, that's not a bad thing at all.

These gains come at the cost of increased power consumption. A rise from 225W to 250W isn't too much to worry about thankfully, as today's high end GPU coolers don't struggle with this kind of TDP. 250W means custom cards likely to be equipped with 8+8pin connectors.

As you'll see in our reviews, the 2080 Super is exactly that, the 2080, but a bit better. The gains over the non Super version aren't as big as those we saw for the 2060 and 2070. 2080 users shouldn't feel aggrieved, unless you bought one very recently, while 2080 Ti users have nothing to worry about. The 2080 Super does exactly what it's intended to do. It narrows the gap between the 2070 Super and 2080 Ti. It provides a solid gaming experience and of course comes with all the forward looking RTX features that we've come to expect. Though the 2080 Super is supposed to be cheaper than the outgoing 2080, $1,000+ is still a lot of money to pay for a GPU. If you've got the dosh, you'll be happy with the performance on offer but we can't help but think that Nvidia's pricing is still too high at every price point.

It's now a year since the release of the RTX series. A mid-life refresh is welcome, but after a year we start to look forward once more. 7nm RTX? A big Navi GPU? It's optimistic to think we'll see anything new in the remainder of 2019, but something is always cooking, of that you can be sure.

Benchmarks

Indictaes Best Result

	Ghost Recon Wildlands (Very High Preset, AVG FPS)			Metro: Exodus (Ultra Preset, AVG FPS)			Shadow of War (Ultra Preset, AVG FPS)		
	1920x1080	2560x1440	3840x2160	1920x1080	2560x1440	3840x2160	1920x1080	2560x1440	3840x2160
Nvidia GeForce GTX 1080 Ti	113.8	88.4	54.8	72.8	57.3	36.0	123	88	51
Nvidia GeForce RTX 2080	116.3	89.7	54.3	80.8	63.2	39.9	133	98	60
AMD Radeon VII	102.1	81.9	51.5	70.2	57.2	37.3	124	87	54
Nvidia GeForce RTX 2060 Super	102.6	78.6	45.5	63.5	49.5	30.7	111	79	48
Nvidia GeForce RTX 2070 Super	107.1	83.8	51.5	73.1	57.0	35.7	123	89	55
AMD Radeon RX 5700 XT	105.9	83.8	50.5	70.3	56.1	34.2	116	77	45
Nvidia GeForce RTX 2080 Super	122.6	95.5	58.3	84.5	66.1	41.6	140	104	64
Asus ROG Strix GeForce RTX 2080 Super	124.9	97.4	60.0	86.1	67.2	42.3	143	105	64

	Shadow of the Tomb Raider (Highest) (Very High Preset, AVG FPS)			Temperatures ©		3DMark		Geekbench GPU Compute
	1920x1080	2560x1440	3840x2160	Idle	Load	Time Spy	FSE	Score
Nvidia GeForce GTX 1080 Ti	117	80	43	37	79	9464	13055	209240
Nvidia GeForce RTX 2080	125	88	47	37	72	10864	12700	295913
AMD Radeon VII	123	85	45	39	78	8914	12252	233124
Nvidia GeForce RTX 2060 Super	103	70	37	37	72	8936	10296	252528
Nvidia GeForce RTX 2070 Super	115	80	42	35	70	9936	11554	273974
AMD Radeon RX 5700 XT	115	77	39	38	84	8843	11551	337712
Nvidia GeForce RTX 2080 Super	135	93	49	37	74	11095	13190	312139
Asus ROG Strix GeForce RTX 2080 Super	138	95	51	34	66	11366	13483	317238

CPU: Intel i7-8700K @ 4.8GHz all cores **Motherboard:** ASRock Z370 Taichi **RAM:** 2x8GB Crucial Ballistix DDR4-3200 **Power Supply:** Antec HCP-1200W **Storage:** 1Tb Samsung 970 EVO M.2 SSD **Cooling:** Corsair H100i Pro **Operating system:** Windows 10 Pro 1903 64-bit

GRAPHICS CARD

Nvidia GeForce RTX 2080 Super

A 2080 with a little bit more.

PRICE N/A
www.nvidia.com

Externally, the RTX 2080 Super Founder's Edition looks almost identical to its non-super sibling. The exception is the addition of a classy mirror finish on the face of the card. It retains the impressive build quality, design and overall aesthetic that we like from all the other RTX Founders Edition cards. It comes with a 1,815 MHz boost clock, which as usual is quite conservative. You can expect clocks well above this if thermal and power conditions allow. We have received word that the Founder's Edition card won't be on sale in Australia, though it will be available in many OEM systems.

The RTX 2080 Super FE uses the same PCB as the non-Super 2080. An 8+2-phase DrMOS VRM system is adequate, but won't match the likes of the Asus Strix card in terms of VRM quality. Unless you're into LN2 cooling though, this won't make any practical difference.

The FE card's display connectivity consists of three DisplayPort 1.4a outputs along with a single HDMI 2.0b connector. The VirtualLink USB Type-C connector designed for VR headsets is also carried over.

The performance on offer from the 2080 Super FE is impressive, but isn't much of a gain over the vanilla 2080. It's able to game 4K and is a particularly strong choice for use with a high refresh rate 1440p monitor.

The RTX 2080 Super is an improvement by almost every measure. It offers a terrific set of forward-looking features, but a 4K gaming card doesn't go for cheap. If you don't mind paying, then the RTX 2080 Super Founder's Edition is a very good card.

VERDICT: **The Nvidia RTX 2080 Super FE doesn't offer anything new, but does everything a little bit better**

8

GRAPHICS CARD

Asus ROG Strix GeForce RTX 2080 Super

A souped up 2080 Super.

PRICE $1,479
www.asus.com/a

If the RTX 2080 Super is an improvement over the standard 2080, then the Asus ROG Strix 2080 Super is on another level again. It's faster, cooler, quieter, has a better build and arguably a better look. It's no surprise that it comes with a higher price too.

GPU spec-wise, the Asus and FE cards are essentially identical, though the Asus boost clock is higher and it drops one of the Display Ports in favor of an additional HDMI 2.0b port. The Asus comes with a host of additional extras though including RGB lighting, dual BIOS, voltage read points, and of course that delightfully over the top cooler and massively over-engineered power delivery system that can provide the GPU with more juice than Nvidia would ever be comfortable with. It's a real powerhouse of a card, whether you like something cool and quiet, something to show off in a windowed case or you want to overclock the hell out of it, you'll be impressed by the Asus Strix.

The Asus Strix had a consistent performance lead over the Founder's Edition 2080 Super, but not by as much as we expected. Still, it's hard to argue with that when it's the fastest non 2080 Ti we've ever tested. It's also amazing cool and quiet. Despite a 250W TDP, the monstrous Asus cooler can barely be heard above our already quiet AIO CPU cooler.

Asus has created a stunningly high-end graphics card that's an improvement in every way over the already very good Founder's Edition card. But as is the case with many top-end Asus cards, that impeccable quality comes with a price.

VERDICT: **A very strong RTX 2080 Super card, but also one of the most expensive.**

8

Best gaming mice

Get the best gaming mouse on the market today!

With a massive proliferation of options flooding the market seemingly every week, finding the best gaming mouse can be a bit of a slog. Fear not, however, we test mice by the dozens to sort the best value propositions out of a crowded field, and to figure out which of the flashy gimmicks are actually valuable to human beings (and don't just look good in marketing copy). Our top picks don't just perform well, they're thoughtfully designed and built, and won't wear out after a few reckless weeks of late night Apex Legends. Esports mice might look great in the hands of your favorite professional gamer, but many of them are cheaply built en masse to ensure they're easy and inexpensive to replace after a couple of tournaments. Practical gamers need pointers that will endure, and that's a big consideration when we filter through the contenders.

Razer Deathadder Elite

The best gaming mouse for shooters.

PRICE: $59
www.razer.com

The Deathadder Elite uses a 16,000 CPI optical sensor, but big numbers don't necessarily mean quality. Here's the important bit: for the Elite Razer chose a sensor based on the PMW-3389 developed by sensor company Pixart in collaboration with Logitech, which is easily one of the best mouse sensors available with 99.4% resolution accuracy and a 450 IPS rating. Razer's implementation should deliver flawless tracking, even if you move the mouse as fast as you can.

Logitech MX518

The best gaming mouse hands down.

PRICE: $99
www.logitechg.com

The MX518 focuses on the things that matter in a proper gaming mouse while eschewing all the fluff and unnecessary bloat that finds its way into some of the competition. This not only means a streamlined mouse that's a joy to use but also means that Logitech is able to avoid wild price inflation. It also packs an ARM 32 microprocessor that pairs with the sensor to ensure a 1ms report rate, and its matte black build and Nightfall finish make it one of the sleekest looking mice we've tested.

Corsair Ironclaw RGB

The best gaming mouse for larger hands.

PRICE: $65
www.corsair.com

The Ironclaw is the best mouse we've tested for gamers with larger hands. While its design encompasses a strange blend of materials, from smooth matte plastic on the buttons to the diamond print, grippy rubber sides, to the unique, wavy rubber on the scroll wheel, each conforms well to its function on the mouse. Instead of a single cohesive material, Corsair has designated one to suit each panel individually, which adds to the excellent overall fit of the mouse to make it feel really cozy gliding over your mouse pad. It's domed and curved fit perfectly in the palm of right-handed gamers, and is one of the best feeling mice to grip I've ever tested.

Razer Naga Trinity

The best gaming mouse for MOBAs and MMOs.

PRICE: $129
www.razer.com

The form and function of Razer's Naga mouse has come a long way over the years. Its latest version, the Naga Trinity, is the best yet: a small, comfortable mouse with a high quality sensor and three interchangeable thumb grips with button arrays ideal for MOBAs, MMOs, or general use.

The MOBA array is the best, offering seven buttons in a circle around your thumb. There are enough buttons to map multiple abilities, but not so many that they become an overwhelming samey blob. The 12 button array, designed for MMOs, has that problem for me, but anyone who wants a whole number pad under their thumb will appreciate the option.

Steelseries Sensei 310

The best gaming mouse for the ambidextrous.

PRICE: $69
https://steelseries.com

The Sensei 310 fits in your hand just like the old Sensei, and is a great shape for either left- or right-handed gamers looking for a midsized ambidextrous mouse. That means it has a pair of identical thumb buttons on the left and the right, a common issue for ambidextrous mice – it can be far too easy to accidentally click the wrong side's buttons as you grip with your pinky. In my hours of testing the Sensei 310, that hasn't happened once. The size and shape of the thumb buttons has been tweaked, making it easy to rock your thumb upwards to press them but keeping them out of the way of accidental pinky clicks. Anyone looking for a small, light, or ambidextrous mouse: this should be your first stop.

ROG Gladius II Wireless

Dual-wireless connectivity and packed with RGB.

PRICE: $115
www.asus.com

The Asus ROG Gladius II is an excellent all-round gaming mouse – and one of the best pointers we've used for gaming. It has a fantastic build quality, feels comfortable to use, and performs brilliantly over a range of genres. Being able to choose between 2.4GHz Wi-Fi and Bluetooth connectivity is a niche feature, but kinda neat.

However, there's no denying that this is an expensive mouse – and it lacks some advanced features, like multiple extra buttons and swappable weights. This means that professional gamers – or enthusiasts who take their gaming very seriously, may want to look at a gaming mouse that's less flashy, but comes with more features and a lower price tag, instead.

Best gaming keyboards

Ditch your stock keyboard and dive into our best gaming keyboards of 2019.

There is a bit of a cult of personality surrounding the best gaming keyboards. Ask 10 people what the best gaming keyboard is, and you're liable to get 10 different answers, and maybe get stabbed depending on how heated the argument gets. This fanatical environment has forced virtually every manufacturer to bring their A-game to get a leg up in the best mechanical keyboard game. Peripheral giants like Steelseries and Razer have been employing everything from magnetic switches to adjust actuation distance to freaking laser beams in an effort to differentiate themselves in this burgeoning market. A gaming keyboard, just like choosing the best gaming mouse, is an incredibly personal decision...

Razer Cynosa Chroma

The best gaming keyboard for membrane enthusiasts.

PRICE: $89
www.razer.com

If even mecha-membrane keys don't suit you and you demand a fully membrane typing/gaming experience, the Cynosa is the deck for you. It has some of the best feeling, low profile membrane keys I've ever tested, and at a retail price of $59.99 is one of the most affordable gaming keyboards out there (past a certain threshold of quality). While it may lack some of the features a number of gaming boards pack in these days, stuff like a dedicated wrist rest or media controls, it does boast Razer's extensive RGB lighting, which can be programmed on a per key basis or applied by zones.

Corsair K95 RGB Platinum

The best gaming keyboard.

PRICE: $259
www.corsair.com

When you want to go the extra mile and upgrade to the absolute best of the best, it's hard to find a better option than the Corsair K95 Platinum. The K95 Platinum is a big keyboard: its enormous footprint still requires some desk cleaning before it can be nested comfortably. But feature-wise, the K95 Platinum's got it all. Dedicated media controls and a USB pass-through, a metal volume wheel, RGB lighting. It even comes with an extra set of textured keycaps for the WASD keys. While it's expensive, you do know what you're getting for your money here, and throughout 2019 we've seen the price of the K95 dropping steadily.

Asus ROG Strix Scope

The best gaming keyboard for FPS lovers.

PRICE: $235
www.asus.com

Asus' ROG Strix Scope is a keyboard made for function over form. While it's festooned with the typical array of RGB lighting, the solid aluminium top plate sports an understated, industrial design that's welcome in an era where flash and spectacle too often take precedence. The Scope is a solid, durable, reliable keyboard that works exactly as advertised without the bloat of unnecessary gimmicks. And with a wide range of Cherry's RGB switches, replacing their less even 3mm LED solution for RGB, you can find the Scope in practically any flavor you'd like. It also has a few quality of life features to appeal to fans of shooters. Full macro customization is available, and the left Ctrl key has been broadened to make it easy to hit during a tense firefight without accidentally actuating other keys.

Cooler Master MK850

The best gaming keyboard to replace a gamepad.

PRICE: $270
www.coolermaster.com

Cooler Master may not be the first name that springs to mind when you think of gaming keyboards, but the MK850 may very well change your mind. The headline feature of their latest peripheral offering is the aimpad technology built into a subset of the deck's keys, which transform them with the push of a button into analog inputs not unlike the analog stick on a gamepad. This means that you can push a key part of the way down and it'll register the input differently than pushing it all the way to the floor, the way you can tilt an analog stick slightly forward to walk in a 3rd person shooter or tilt it all the way to run. It's a useful feature, particularly in stealth or racing games, where analog input is an important factor and a traditional mouse and keyboard setup hasn't sufficed.

Razer Huntsman Elite

The best gaming keyboard to actuate at the speed of light.

PRICE: $279
www.razer.com

The Huntsman family of Razer keyboards is the only place in the world to find their opto-mechanical switch, and it's one of the best (and most technologically interesting) switches on the market. The opto-mechanical build eschews traditional metal contacts, and instead actuates by a beam of light that fires through the switch when the key is depressed, meaning actuation is almost instantaneous. The other major advantage of removing all the relatively frail, slender metal contact pieces from the switch is that they're rated as twice as durable as standard mechanical switches, up to 100 million keystrokes. They're tactile switches that actuate at 1.5 mm and 45g of force, meaning they're ridiculously easy to spam but still provide tactile feedback. They're also amazing for typing for much the same reason.

Best gaming headsets

These are our top selections for the best gaming headsets you can get right now, offering immersion and quality communication for PC gaming.

When deciding the best gaming headsets, we look at a ton of different aspects of each pair that come in. Are they comfortable? What kind of gaming-specific features does it offer? Is it hideous? And, of course, how's it sound? We look for the headphones that perform leaps and bounds better anything you can find tucked away in a desk drawer somewhere. A decent microphone on a gaming headset is often one of the most overlooked features we come across. With games like Gears 5 or Rainbow Six Siege where making sure your teammates can hear you clearly can often mean the difference between a win or a loss. So, if you're looking to replace your current headset or just want to hear how your favorite games are meant to be heard. We've got you covered.

HyperX Cloud Alpha

A well rounded, well-balanced headset for game audio.

PRICE: $169
www.hyperxgaming.com

Bearing the fruits of HyperX Cloud's long legacy of excellence, the newest Cloud Alpha presents excellent sound and build quality with the essential features done well, and no feature-flab inflating the price. The stereo soundscape in this closed-back design is punchier in the low end than we'd usually go for, but the extra bass doesn't interfere with overall clarity – and frankly, in games and music environments, it sounds great. Each 50mm driver's dual chamber design is intended to give low, medium and high frequencies space to resonate without interfering with each other, and you do get a sense of that while listening to them.

Steelseries Arctis Pro + GameDAC

The high-end gaming headset that does it all.

PRICE: $349
https://steelseries.com

High-res audio is on the up thanks to lossless streaming from Tidal et al, and games such as Wolfenstein II: The New Colossus offering full support. The Arctis Pro GameDAC makes full use of that crystalline high-res sound with a 5Hz-40KHz frequency response range – a spec that also makes the drivers sound great for everyday compressed audio usage. So, if you're planning to use a gaming headset for watching videos and TV on your PC, or music, this is a great choice. The GameDAC itself is a combination of a digital-to-analog converter that takes the strain away from your CPU, a preamp, and a control center. With a press of its button and a roll of the dial, DTS Headphone-X surround can be enabled or disabled, chat/game mix tweaked, and EQ settings perfected.

Razer Nari Ultimate

The best Razer headset on the market.

PRICE: $169
www.razer.com

Since it features a wide gamut of haptic frequencies rather than just one static mode of vibration, the Nari Ultimate exhibits one of the most true-to-life rumble sensations we've ever experienced. And because support for it isn't programmed at the software level, every game is compatible. But it's more than just haptics. In fact, the sound quality on the Nari Ultimate is a considerable improvement from Razer's phonic endeavors of the past. Unlike the bass-heavy Kraken series cans, this one adds a healthy balance of highs and mids to the mix as well. The wireless connection is a rock-solid one, and the overall comfort of the headset is excellent.

Creative Sound BlasterX H6

Can turn its hand to all media.

PRICE: $139
https://au.creative.com

Enjoying something of a renaissance and resurgence, Creative have busted out some quality products in recent times and one of the best is the Sound BlasterX H6 headset. It's a midrange, USB-connected headset that does everything pretty darn well. From design, to microphone, to companion software, we really like this headset. It's got a stylish and pleasing design, based in black and metal – while the cups have an illuminating RGB circle on them – and it feels very solid and secure when you're wearing it. The thick-cushioned ear cups are a joy to wear as an everyday headset.

Razer Kraken X

The best cheap headset with 7.1 surround sound.

PRICE: $89
www.razer.com

As a cheap alternative to the tricked-out Kraken, the Kraken X is a budget-friendly option that excels on PC for one simple reason – virtual 7.1 surround sound. Available via an app, this elevates the headset's already good audio thanks to superior depth, clarity, and definition. It also makes going back to the X's standard audio mode difficult. When you throw in enviable comfort and a stylish, understated design, this version of the Kraken offers tremendous value for money. There are niggles to dampen the party, of course (a non-detachable mic being chief among them), but you can't complain when you're getting excellent 7.1 sound for such a low cost.

Turtle Beach Recon 200

An excellent budget option that is best for shooters.

PRICE: $79
https://au.turtlebeach.com

If you're after quality but on a restricted budget we'd definitely recommend trying put the Recon 200 from Turtle Beach. Walking the line of quality and price excellently, you'll get great sound enhanced by a meaty Bass Boost feature, and a terrifically clear mic for comms. It's not got the same quality in seamless surround sound that dearer sets have, but it's good for the price and will be assisted greatly by what it presents to your ears. That always-on Bass Boost hints at what the Recon 200 is best for – shooters – and it really shows with war noises and weapon sounds particular good and enjoyable.

Not only is the new ROG Strix Scope a joy to use, it's also built to last.

Upgrade now with Asus!

THE LATEST AND GREATEST GAMING PERIPHERALS FOR YOUR PC.

It doesn't matter how incredible a gaming PC you're rocking if your W key sticks, or the music doesn't sound right through your aging headphones. Without the latest equipment, your PC is being wasted; you want your gaming to be comfortable and convenient. This month we're checking out ASUS' amazing range that'll bring your game up a notch and give you the best experience possible on your PC.

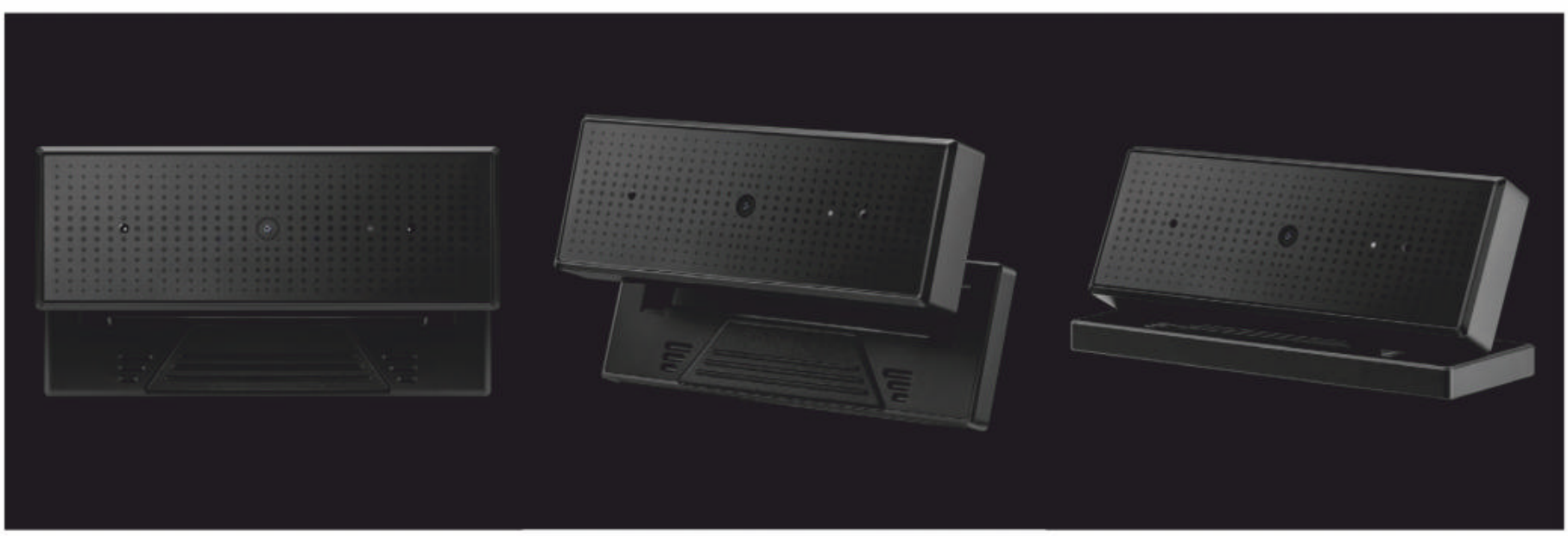
KEYBOARD AND MOUSE - THE PERFECT MATCH

The keyboard you're using can have a huge impact on your performance: you don't see esports pros playing on the discarded keyboard they smuggled home from the break room at work. The ROG STRIX SCOPE Deluxe Gaming Keyboard is a serious piece of kit, one made with gaming in mind. This is a keyboard designed for comfort and precision: it's got an ergonomic wrist rest attached magnetically along the bottom, as well as a wider Ctrl key so you don't find yourself fumbling for it in the middle of a firefight. It comes with silver keycaps for the WASD keys, as well as a keycap puller so that you can easily customise your caps and make the primary control keys stand out. The Quick Toggle Switch lets you switch between media and function inputs on the top row easily, and there's even a 'stealth key' that immediately hides all your apps and music with a quick press (we'll leave the potential uses for that one up to your imagination). This keyboard is built with Cherry MX RGB switches for that perfect mechanical feel without the clicking noises you get from some other models, and it's all put together with a durable metal frame and built-in cable routing. It's also Aura Sync compatible, and it looks great in front of any monitor.

The ideal mouse is versatile; it's a perfect fit for your home set-up, but you can also take it with you if you want to game with a laptop on the road or take your rig to a LAN. The ROG STRIX CARRY portable mouse is designed with portability in mind, but it doesn't compromise where it counts. It's totally wireless, featuring SmartHop technology that allows it to scan the radio spectrum a thousand times a second to avoid any interference or congestion issues, making for seamless gaming no matter where you're playing. This mouse has astonishing battery life, designed to last for 300+ hours of use on a 2.4GHz connection and 400+ hours over Bluetooth. It's a beautiful piece of design, featuring a PMW3330 7200 DPI optical sensor for maximum accuracy, and switch sockets inside that allow you to change force and feedback, customising for a more immersive experience. With a max acceleration of up to 30G and a max tracking speed of 150 inches per second, this mouse will give you the precision you need. It's been tested for comfort, and it comes with a leatherette pouch to protect it on the go: it's a mouse designed to please absolutely everyone.

GAME-READY SOUND

A good headset immerses you in your game, letting you hear enemy footsteps to get the drop on them and communicate with your teammates,



The perfect camera and mic combo for the serious streamer.

and if you can have that without any wires, all the better. The TUF GAMING H7 wireless gaming headset uses 2.4GHz wireless technology and a dual-antenna design for fantastic low-latency audio – superior to what you'd get from a Bluetooth headset – by simply plugging in a USB dongle. With a 15+ hour battery life and a coverage area of 25 metres, it's designed for reliable, comfortable audio: the cooling fabric cushioning on the earpieces is even reduces pressure and make the headphones more comfortable to wear with glasses. The airtight chamber and 53mm ASUS Essence drivers packed into the headset make for superior, clear sound with strong bass, so you'll hear every sound detail the developers have dropped into your game. The volume control, microphone mute and power switch are easily accessible on the unit, and the stainless-steel headband is designed to last for a long time, with 20% less clamping force than the previous TUF Gaming model. It's even compatible with a PlayStation 4, so you can get the most out of Death Stranding and The Last of Us Part 2's sound design too.

Earbuds are ideal if you want to game on the go, or you want something that you can use with your phone and other consoles while also getting a great performance on your PC. The ROG CETRA in-ear gaming earbuds sport a USB-C connector, and are compatible with mobile devices, as well as PlayStation 4 and Nintendo Switch, but they're ideal if you don't want to compromise on your PC gaming experience thanks to their 10mm Essence driver. They pack in Active Noise Cancellation technology to cut out any distractions and pull you fully into your game and are designed to sit comfortably thanks to a design that takes the shape of the human ear into account. They also feature the innovative 'Ambient mode', for when you want to let the outside world in without wanting to take the headphones out. They come with a travel case and three sizes of silicone tips and ear fins, as well as a single pair of foam ear tips, so you're guaranteed a comfortable fit.

A killer combination of sound and tactile precision.

Take your mouse with you wherever you go!

STREAMING LIFE

Streaming has become a major part of gaming, and if you want to show the world your skills – or even start earning money through Twitch – you need a good camera. The ROG EYE Streaming Camera is ideal if you want your face on camera while you rack up chicken dinners and victory royales. It allows for full 1080p HD and 60FPS output, for detailed, crisp video, and thanks to its Face Auto Exposure technology you can ensure that you won't be shrouded in shadow. It uses Wide Dynamic Range technology and blue glass to give as clear and detailed an image as possible. The camera slips right on top of your monitor, and it can fold down to just 17mm. It features a dual beamforming microphone array for your commentary, designed to filter out noise and record your audio with a 96kHz/24-bit sample rate. Whether you're just starting out or you're a streaming vet looking to up your game, it's the perfect camera.

Serious mobile gaming sound from ROG.

PC CASE

Thermaltake s500

It's a like a transformer you can build a PC into…

PRICE $169
www.thermaltake.com

For a while there every case-maker and their dog was trying to be the most aggressive designer on the block. Coloured panels! Inset RGBs! Weird angles that you might expect some Lovecraftian horror to emerge from! It was legitimately getting hard to find "just a case, thanks", unless you were happy to opt for the classic and rather unchanging lines of the likes of a Lian Li. Thankfully, Thermaltake is bucking the trend, and its S500 case is a reassuringly plain but really quite elegant slab of metal. It plainly means business, but it's not being showy about it, with a simple front fascia that's so stark you might expect a tribe of early hominids to worship at it.

There's no ventilation on the front panel at all. Instead, there's an elongate grill running down either side just in back of the front panel, and all the usual I/O options are placed along the leading edge of the top panel. Things get more interesting at the S500's rear, with a rear fan set into a very versatile fan mount, and eight expansion slots complete with removable metal covers. Impressively, this whole panel is designed to swivel 90 degrees in case you want to show off your big bad GPU to maximum effect. It's not something I'd want to do in a PC build – it's to game on, not look at – but if interior aesthetics are your thing it's a nice touch.

Underneath the case you've got some lovely rubber feet to keep the whole thing sturdy, and a removable dust filter to keep things clean. Speaking of sturdiness, however, this is one heavy case. It's technically a mid-tower, but at nearly 15kg, it feels in a bigger league. This is thanks to the S500's all-steel construction. If you're not a fan of heavier cases, look elsewhere, but we like the heft.

The mid-tower nomenclature seems out of place again when you peel back the tempered glass sidepanel. There is a LOT of room in here, and you're not going to run into many build restrictions at all. There's a PSU enclosure to keep things tidy, though it's not as obscuring as some, and this shroud also boasts vertical GPU mounts if you want to turn your video card up on its side. Fair warning, though – you'll need to provide your own cables if you want to go this route, which is a bit annoying. The interior is completed by generous rubber grommets on the cable runs, a removable/adjustable set of HDD bays (handy if you want to go hard with water cooling), and two 120mm fans – one front, one rear – out of the box. The cooling's a little on the light side, but if you're running your hardware at stock it'll hardly be an issue.

> "It was legitimately getting hard to find "just a case, thanks", unless you were happy to opt for the classic and rather unchanging lines of the likes of a Lian Li."

Despite what feel like some oversights, this is a premium-look case at a very impressive price point. And I love that stark design!

DAVID HOLLINGWORTH PC

+
- Roomy interior
- Silky smooth steel finish
- MONOLITH

-
- No GPU riser cable included
- Might cause you to slip a disk

VERDICT: **A weighty case that still manages to punch about itself, the S500 will be a joy to build into.**

8

GAMING MONITOR

Acer Predator X35

Is this the holy grail of gaming monitors, or just a sacrilegiously expensive one?

PRICE $3,999
www.acer.com/au

Ticking off just about every monitor spec a modern PC gamer could dream of, this 35-inch LED-backlit VA screen from Acer has been a long time coming. First revealed back in August 2017, the X35 has taken nearly two years to come to market, and it's joined by near-identical competitors from Asus and AOC, with all three employing the same ultrawide panel from AU Optronics (AUO).

At an eye-watering $3,999, this Acer model is in another league entirely, putting it out of reach of all but the most well-heeled of gamers. But that said, there's nothing that even comes when it comes to specs: that curved panel promises a 200Hz refresh rate alongside G-Sync, DisplayHDR 1000 support, full-array local dimming (FALD) backlights and a designer-friendly 90% DCI-P3 colour gamut. Its 3,440 x 1,440-pixel resolution doesn't need an array of top-shelf cards to drive it… well, not unless you want to hit 200 frames per second to match that refresh rate.

Out of the box, it's colour accuracy is excellent too – we ran it through an X-Rite i1Display Pro calibration, and found it matched Adobe RGB/6500K settings without any tweaking required, and its colour uniformity was also outstanding, with exceptional backlight evenness and no indications of light bleed around the edges – so it's immediately ready to go for basic colour-accurate design work.

This really is a monitor that's intended for entertainment, though, and there it doesn't disappoint either. In games that support high dynamic range colours (such as Metro: Exodus and Shadow of the Tomb Raider) that DisplayHDR 1000 spec – the second highest available – translates to an immediately noticeable bump in image depth when activated. Blacks are deeper and with more subtle detail, and bright colours pop with more vibrancy and realism, and that broader colour range imparts a much greater sense of three-dimensionality overall.

When coupled with that 200Hz overclocked refresh rate (it can hit 180Hz natively, but we had no issues running it at top speed in terms of image quality or glitches) and G-Sync, that adds up to an unmatched gaming experience, particularly in first and third-person titles, where the onscreen action feels more immediate and responsive than on any other monitor we've every tested.

Subjectively speaking, this 35-inch size also feels significantly more substantial than the more common 34-inch ultrawide gaming screens – the extra physical vertical height means it fills more of your natural field of view, and doesn't feel like a narrow viewport.

There's one glaring fault with the X35, however, and that's ghosting. VA panels have been a bit notorious for this in the past, and sadly AU Optronics and Acer haven't been able to completely eliminate it here. The problem's particularly noticeable when you have a dark-black element against a lighter background, with that high-contrast visual causing dark trails to lag along behind the black area when it's in motion.

As much as we love the other aspects of this display, however, for this kind of price we'd be expecting perfection – and unless you can categorically say you never play games with these kind of high-contrast visuals, we'd have trouble recommending this otherwise stonkin' screen.

DAN GARDINER PC

+
- Fills your field of view handsomely
- Great for all entertainment
- G-Sync compatible

-
- The ghosting is just too much, especially at this price point

VERDICT: **Amazing specs and mind boggling performance are undermined by the old VA panel bugbear: ghosting.**

7

CPU

AMD Ryzen 5 3400G and Ryzen 3 3200G

Gaming on a tight budget? Have a look at these.

PRICE $145 & $239
www.amd.com

AMD has had a lot of time in the limelight with the recent release of its Ryzen 3 series processors. It's easy to forget though that the company made a name for itself with its so called APUs (Accelerated Processing Units) which come with integrated graphics. Here for review we have the latest generation Ryzen 3 3200G and Ryzen 5 3400G processors. These don't make use of the latest Zen 2 architecture or 7nm like their big brothers, instead making use of the older 12nm process and the Zen+ architecture.

Moving to Zen + and 12nm means these processors can be considered evolutionary rather than revolutionary. Second generation APUs already had competitive value and performance along with class leading integrated graphics. The 3200G and 3400G are all about offering a balanced computing experience by incorporating a quad core design and integrated graphics capable of 1080p gaming.

The AMD Ryzen 5 3400G is a 4-core/8-thread AM4 model with 3.7GHz and 4.2GHz boost clocks. This is a 100MHz and 300MHz increase in base and boost clocks over the 2400G. The graphics configuration remains the same, with 11 Vega compute units clocked at 1400MHz, up from the 2400G's 1250MHz. The TDP remains at 65W. More performance within the same power budget is always welcome.

The Ryzen 3 3200G gets a similar bump in spec. It's still a 4-core/4-thread processor with eight Vega compute units. It comes with 3.6GHz base and 4.0GHz boost clocks along with a 1250MHz GPU clock. Compared to the 2200G, this represents a 100MHz jump in base clock, an impressive 300MHz boost clock gain and a 150MHz GPU clock speed improvement.

Both APUs come with bundled coolers. The Wraith Spire included with the 3400G is decent, while the Wraith Stealth with the 3200G is adequate, but nothing more.

As expected the integrated graphics performance of both processors simply destroys the Intel HD 630 found across most of Intel's desktop range. Though you won't be playing AAA titles at 4K, it's nice to see playable 1080p, even if it's at low settings. Less demanding games like CS:GO are perfectly playable even at maximum settings. Of course you can always add a discrete GPU later on if you choose.

CPU performance is no match for the likes of a Ryzen 5 2600X let alone the Zen 2 models but remember these cost $145 and $239. They're perfectly suited to everyday tasks that the majority of mainstream users need them for. These are the kinds of processors that put a nail in the coffin of any and all dual core CPUs.

The Ryzen 3 3200G and 3400G deliver class leading all round performance in this price range. They're cool running and power thrifty, and surprisingly so given the thermal characteristics of discrete Vega GPUs. At this time, there's nothing better if you are looking to build an affordable system capable of some light gaming. They're an evolution of the 2000 series models though, and they don't dazzle as much as they would if they contained Zen 2 cores and/or a Navi IGP. That aside, these are terrific value processors.

CHRIS SZEWCZYK PC

AMD Ryzen 5 3400G Socket AM4; 4core/8thread; 3.7GHz base/4.2Ghz boost clock; 4MB L3 cache; Radeon Vega 11 Graphics; Supports DDR4-2933; 65W TDP; Wraith Spire bundled cooler.

AMD Ryzen 3 3200G Socket AM4; 4core/4thread; 3.6GHz base/4.0Ghz boost clock; 4MB L3 cache; Radeon Vega 8 Graphics; Supports DDR4-2933; 65W TDP; Wraith Stealth bundled cooler.

\+
- Unbeatable value
- Excellent thermal performance

\-
- Look elsewhere if you want to game at higher than 1080p

VERDICT: **AMD's APUs deliver a superlative combination of CPU and GPU performance and excellent value.**

3200G	3400G
8	9

CPU

Amd Ryzen 5 3600 and Ryzen 5 3600X

Are they the new mid-range champions?

PRICE $315 & $389
www.amd.com

We were full of praise for AMDs new 3rd generation Ryzen processors. While the higher-end eight and twelve core CPUs occupy the performance segment, the hex core Ryzen 5 3600 and Ryzen 5 3600X fill the popular $300 to $400 price void nicely. They both have all the 3rd generation tech, features and performance under the hood. Now AMD can add mainstream affordability too. Are these CPUs the new price/performance champions?

The 3600X comes with a 200MHz increase on base and boost speeds when compared to Ryzen 5 2600X. The L3 cache is doubled and DDR4-3200 is officially supported. Add in all cumulative architectural benefits of Zen 2 and its clear we're dealing with a much faster CPU. TDP remains at 95W.

The 3600 is in our opinion the more enticing of the two. With its 3.6GHz base clock and 4.2GHz boost clock it's 200MHz slower than the 3600X, but it's also cheaper and comes with a 65W TDP making it more suitable to small form factor or a noise minimised build. You're not really losing that much in performance either. About the only real weakness is the very basic Wraith Stealth cooler which isn't great compared to the bigger Wraith Spire that comes with the 3600X.

Both 3600 processors exhibit very strong multithreaded performance, beating out the still quite beastly Intel i7-8700K. Gaming performance is also competitive. Not bad at all when you consider Intel's clock speed advantage. Intel still has its nose in front in pure maximum FPS gaming, but not necessarily at every price point. Remember that in a GPU limited scenario, any gaming FPS advantage essentially evaporates. Overall, the 3600 and 3600X are better balanced across a range of workloads.

Power consumption and temperatures for both models are impressive. We used our Corsair H100i Pro 240mm AIO cooler and maxed out at 64C with the 3600. The 3600X was only a couple of degrees more. Bear in mind that we're in winter, so temps in a closed case in summer will be higher. Power consumption results were enlightening too. We recorded a peak system power consumption of 154W vs 144W for the 3600, not as much of a difference as we expected.

AMD continues to kick goals. The 3600 and 3600X carry all of the 3rd generation's features and strengths combined with excellent value. At $315, the 3600 in particular is simply outstanding. It's much cheaper than a 9600K and has no real competition at its price point. The 3600X is of course faster than the 3600, but not by much. Pair either one of these processors with an affordable B450 or X470 motherboard and you'll get a very well balanced system and have a few extra dollars to put towards a faster GPU or bigger SSD. (Don't forget that a non-X570 AM4 board might need a BIOS flash to include 3rd Gen support). We think the 3600 is the more compelling out of the two as its cheaper, uses a little less power and isn't far behind on performance. Either one will serve you well across a range of workloads though.

CHRIS SZEWCZYK PC

AMD Ryzen 5 3600 Socket AM4; 6core/12thread; 3.6GHz base/4.2Ghz boost clock; 32MB L3 cache; Supports DDR4-3200; 65W TDP; Wraith Stealth bundled cooler.

AMD Ryzen 5 3600X Socket AM4; 6core/12thread; 3.8GHz base/4.4Ghz boost clock; 32MB L3 Cache; Supports DDR4-3200; 95W TDP; Wraith Spire bundled cooler.

+
- The best Ryzens yet
- Surperb value
- Great performance

-
- Almost none we can think of. Buy one!

VERDICT: **AMDs Ryzen 5 3600X and 3600 in particular deliver a fantastic blend of performance, features and value**

3600	3600X
10	9

The Ultimate Thermaltake PC

THE RIGHT CASE, FANS AND POWER SUPPLY FOR YOUR NEXT BUILD.

Thermaltake's product range is ideal for any PC enthusiast's next build. Maintaining the ideal PC doesn't just mean updating the video card or improving your RAM every few years – sometimes you need a new case, or a smarter cooling solution, or a tougher power supply. This month we're highlighting a handful of unique new Thermaltake products to elevate your build to the next level.

STEALTHY STEEL

The Thermaltake S500 Mid-Tower Case sports an attractive, simple design measuring 565 x 240 x 500 mm, constructed with high-quality black steel and sporting a sleek, minimalist front panel. It's a case designed to blend into any environment, from home to office to any LAN party you take it to. On one side you'll find a 4mm thick tempered glass panel, so you can keep an eye on what's going on inside your PC or enjoy any RGB light displays you've set up. It supports motherboards all the way up to a full ATX, and its patented rotational PCI-E slots mean that you can display your graphics card either vertically or horizontally, depending on your preference.

It comes with a pre-installed 120mm rear fan, as well as a 140mm front fan, but there's space for more fans and cooling inside. It's LCS certified, meaning that it's ideal for liquid cooling if you plan on running hot. There's space for a CPU cooler of up to 172mm, a 400mm VGA and a 220mm PSU. The chassis also sports two USB 3.0 ports and two USB 2.0 ports on the top front for easy access, as well as an audio and microphone jack, so it's easy to plug in your microphone, external hard-drive, and anything else. It's an ideal mid-size tower case.

ABOVE LEFT: The very elegant S500 Mid-Tower Case.

ABOVE: The ever so stylish A700 Full-Tower Case.

TERRIFICALLY TEMPERED

If you're looking for something a bit bigger, look no further than the Thermaltake A700 Full-Tower Case. It sports a similar design, but with a black aluminium finish, two tempered glass panels, and dimensions measuring 582 x 294 x 596 mm. It's a case that can handle anything you throw at it, and it supports motherboards up to E-ATX. The panels on either side are made up of 5mm tempered glass with a gull-wing design, so they can be lifted up for easier upgrades – it also means you can take advantage of an RGB lighting set-up.

BELOW: Thermaltake's Floe DX RGB AIO CPU Cooler features impressive RGB effects.

The A700 has many of the same features of the S500, including rotating PCI-E slots, front and rear fans, and four USB ports (two 3.0, two 2.0), but it also has some unique features of its own. A magnetic fan filter at the top of the case makes for superior dust filtration, keeping the inside of the case safe from dirt and dust. Tool-free drive cages for HDD and SSD drives make it very easy to upgrade your available space, and the PSU shroud included will improve your cable management. It features a Type C port near the USB ports, and space inside for a radiator up to 420mm at the front and 360mm at the top. It's LCS certified for liquid cooling and is compatible with the full slate of the Water 3.0 and Floe series.

ABOVE: Thermaltake's Floe DX RGB AIO CPU Cooler in all its glory.

FULL FLOW

The hotter your PC, the cooler you need to run it. An ideal cooling solution will mix fans with liquid cooling, and with the Thermaltake Floe DX RGB AIO CPU Cooler (which is available in 240mm and 360mm models), you have both. These all-in-one CPU coolers use Thermaltake's famous Riing Duo RGB fan design, which boasts a long-life hydraulic bearing and a compression blade design so that they will last the life of your PC and cool as efficiently as possible. These fans also feature 36 programmable LEDs to ensure that your PC can handle the heat and look good while doing it. Using Thermaltake's RGB Plus software, you'll have full control over the lighting display inside your case, and it's also compatible with Razer Chroma and Amazon Alexa.

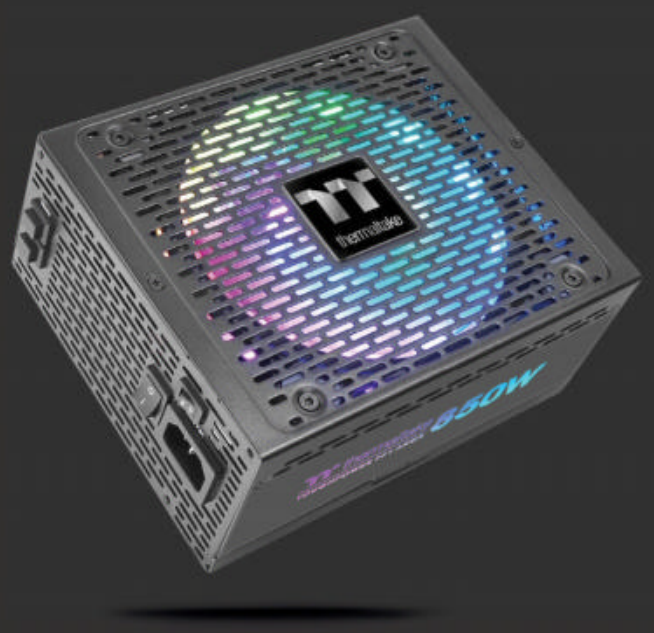
The Floe DX sports a high-efficiency radiator to increase the cooling surface as much as possible, while also supporting up to 4 x 120mm fans if you really need to dissipate some major heat. It features a copper base plate for your CPU water block, as well as braided tubing designed to last. This premium cooling solution is easy to set up and does not require additional maintenance once it's in place, so you can enjoy all the perks of liquid and fan cooling without any hassle. It supports both AMD and Intel CPU brackets, too.

The one thing that every set-up needs is power. Your power supply doesn't need to be a dull little black rectangle that gets hidden away, though. The Thermaltake PF1 ARGB PSU Power Supply is stylish, versatile, and cool – it's a great reminder that every single part of your build can be exciting. This is an 80 Plus Platinum Certified PSU, rocking a 10-year warranty and an RGB Riing Duo 140mm hydraulic bearing fan that comes complete with 18 addressable LEDs. This, combined with the RGB-lit logo illumination, gives the power supply a premium look and feel. There are lighting and colour mode buttons at the back of the unit, next to the on-off switch, and it's compatible with multiple motherboard RGB software suites, including ARGB Sync, AsRock Polychrome, ASUS Aura Sync, Gigabyte RGB Fusion 2.0, and MSI Mystic Light.

There are no messy cables in this power supply, thanks to low-profile flat back custom cables and daughterboards that have been directly soldered to the motherboard for improved power output and heat dissipation. It features lower ripple noise and stricter voltage regulation than its competitors, and the premium Japanese capacitors improve its overall durability and stability. It's Intel and AMD ready, too.

Thermaltake's range of products is designed to look great, but also to provide the best performance on the market. With these new products you can put together a system that is stylish, efficient, and much easier to maintain, so you can focus on playing the best games with the settings maxed out without needing to worry about your case holding all your parts, your system overheating, or any power issues.

BELOW: Thermaltake PF1 ARGB PSU Power Supply is stylish, versatile, and cool.



INVENTORY

THE BEST BUILD FOR EVERY BUDGET

CONTROLLERS

Sometimes you gotta go mouse + keyboardless

Xbox One Controller

$69 *microsoft.com/en-au/*

Plug and play meets comfort. Every PC needs a controller and this is the best

Steam Controller

$89.95 *store.steampowered.com*

There's a bit of a learning curve, but it's great for couch gaming

MODEM ROUTERS

For all rational budgets

BUDGET

Synology RT1900RT

$169 *synology.com*

Good performance and delightfully easy to set up and manage

Synology Router RT2600ac

$328 *synology.com*

Perfect for all but the biggest families, has unusually strong transmission strength

PREMIUM

Asus ROG Rapture GT-AC5300 Gaming Router

$695 *asus.com.au*

Super fast and future proof, this is a gaming router that takes no prisoners and offers no compromise.

LAPTOPS

Gaming on the go

BUDGET

Dell G3 15

$1,599 *www.dell.com*

8th-gen CPU and a reasonable GTX 1050 is a bargain basic gamer

PREMIUM

MSI GS75 Stealth 8SG

$4,799 *msi.com*

Now boasting RTX power!

MINI

For lounge room gaming and streaming

CPU + COOLING

Intel Core i5 7500 w/ stock cooler

$235

intel.com

MOBO

Asrock Z270M-ITX/AC Motherboard

$185

asrock.com.au

GPU

Asus DUAL-RX480-4G

$338

asus.com.au

MEMORY

16GB DDR4 Corsair Vengeance LPX

$249

corsair.com/en-au

STORAGE

Samsung SSD M.2 2280 NVMe 250G 960 EVO + 2TB HDD (any)

$169 + $50 *samsung.com/au*

CASE

Fractal Design Define S Nano

$115

fractal-design.com

PSU

SilverStone SFX Gold 500W SX500-LG

$110

Silverstone.com

SOUND

Your sound system

What you paid for it

DISPLAY

Your TV

What you paid for it

KEYBOARD

Roccat Sova

$199

www.roccat.org

MOUSE

Roccat Kone EMP

$99

www.roccat.org

TOTAL: **$1,749**

BUDGET

The perfect entry-level gaming PC

CPU + COOLING

AMD Ryzen 5 2600 + Wraith cooler

$235

amd.com

MOBO

Gigabyte B450 Aorus Pro Wifi

$229

gigabyte.com.au

GPU

MSI RX 580 Gaming 8GB

$399

msi.com

MEMORY

Adata XPG Spectrix D60G

$159 *xpg.com*

STORAGE

Sandisk SSD Plus 240GB

$85 *www.sandisk.com.au*

CASE

Corsair Carbide SPEC-02 Mid Tower Gaming Case

$80 *corsair.com/en-au*

PSU

SilverStone Strider Essential 500W ST50F-ESB **$55**

silverstone.com

SOUND

Razer Kraken X

$89

www.razer.com

DISPLAY

AOC Q3279VWFD8 75Hz Freesync 32in IPS

$299

au.aoc.com

KEYBOARD

Tesoro Tizona G2N

$49

tesorotec.com

MOUSE

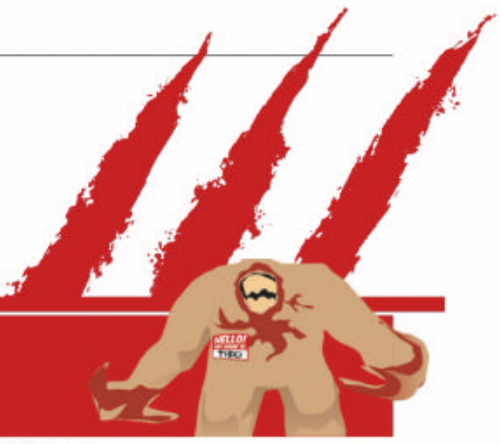
Cooler Master MM530

$59

coolermaster.com

TOTAL: **$1,729**

Despite the impressive new Ryzen chips, and the very tasty RTX 2080 Super, we're not adding them to our builds just yet. We think the current hardware choices still represent the right gear at the right price. But we have updated a lot of the peripherals this month, thanks to the top performers in our peripherals roundup on page 78. However, I've decided to leave the mouse in The Beast unchanged - mainly because that is still the mouse I use at home, and you can pry it out of my cold dead hands!



PERFORMANCE

Most bells and whistles, without breaking the bank

CPU + COOLING
Intel Core i7 8700K with Noctua NH-D15 CPU Cooler
$529 + $115 *intel.com*

MOBO
Asrock Z370 Taichi
$284
asrock.com.au

GPU
MSI GeForce RTX 2070 Gaming Z 8G
$1069
au.msi.com

MEMORY
Crucial Ballistix Sport LT 4X8GB
$268
crucial.com

STORAGE
2TB HDD (any) + SAMSUNG 500GB M.2 NVMe SSD 970 EVO PLUS
$199 + $50
samsung.com/au

CASE
Fractal Define R6
$209
fractal-design.com

PSU
Be Quiet! Dark Power Pro 11 850W Power Supply
$279
bequiet.com

SOUND
Sennheiser PC 373D
$329
en-au.sennheiser.com

DISPLAY
Asus ROG Strix XG32VQ
$859
www.asus.com/au

KEYBOARD
Cooler Master MK750
$189
www.coolermaster.com

MOUSE
Logitech MX518
$99
www.logitechg.org

NEW!

TOTAL: **$4,478**

THE BEAST

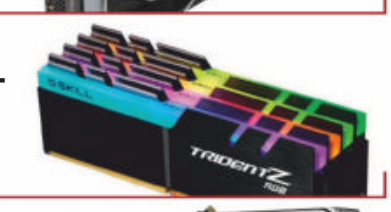
When overkill is barely enough...

CPU + COOLING
AMD Threadripper 2 2990WX + Corsair H105
$2,699 + $145
amd.com

MOBO
Asus ROG Zenith Extreme
$559
asus.com.au

VIDEO
Nvidia GeForce RTX 2080 Ti
$1,899
nvidia.com/en-au

MEMORY
4x8GB G.Skill Trident Z RGB quad-channel 3466MHz DDR4
$745
gskill.com



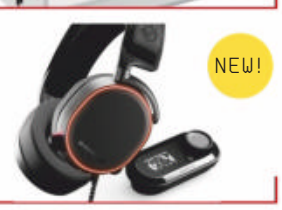
STORAGE
Samsung 960 Pro 2TB + Seagate Barracuda Pro 10TB
$1,589 + $599
samsung.com/au

CASE
Thermaltake Level 20 GT
$369
thermaltake.com.au

PSU
Corsair RM1000i Special Edition
$279
corsair.com/en-au

SOUND
Steelseries Arctis Pro + GameDAC
$349
steelseries.com

NEW!



DISPLAY
Alienware AW3418DW
$2,099
alienware.com

KEYBOARD
Corsair K95 Platinum RGB
$249
corsair.com/en-au/

MOUSE
Corsair M65 RGB Elite
$85
rcorsair.com/en-au/

TOTAL: **$11,665**

Tri-band data rate of of 5334 Mbps
Ultra-fast 802.11ac Wi-Fi router
Smooth 4K/UHD video playback

2.4 GHz 1000 Mbps
5 GHz-1 2167 Mbps
5 GHz-2 2167 Mbps

Exclusive Built-In Game Accelerator

HOTWARE 278

with Terrence Jarrad

01

02

03

04

Arcade1Up Cabinets

Price: $500-ish
Distributor: EB Games or Aldi Maybe?
arcade1up.com

These mini arcade cabinets are a cheap and easy way to get some classic arcade gaming in your home if you don't feel up to a full DIY project. There's a decent range of games too, from Galaga and Space Invaders, to TMNT and Mortal Kombat.

POWERED UP: Original style artworks. At least two games on each cab.

PLAYED OUT: Uncertain if we'll see them on our shores – the last round apparently didn't sell well at EB Games or Aldi and ended up heavily discounted. You'll definitely want to buy or build a riser for these as well, since they are smaller than standard cab size, and using them for any length of time may be awkward. Lastaly, you'd definitely get better value from building your own MAME cabinet.

Sony Walkman 40th Anniversary Edition

Price: $TBA
Distributor: Sony
www.sony.com

Ah, the Walkman, a revolution in personal portable music devices, now made entirely redundant by phones and subscription music services. Still if you're the nostalgic type, maybe this limited edition digital reimagining of the Walkman is up your alley.

POWERED UP: Android-based music machine with a 3.6 inch touchscreen. 16GB storage, microSD expansion, WiFi, Bluetooth.

PLAYED OUT: Modern features unrestrained by a reality in which smartphones already provide these things.

Langogo Translator

Price: $450
Distributor: Langogo

If you've ever wanted to visit other countries but were held back by your concern over the language barrier, the Langogo translator might be just the thing to get you up and adventuring. Powered by AI and integrating 24 translation engines, it learns as it works, ensuring you aren't just getting a direct word-for-word translation that comes out unintelligible.

POWERED UP: One-button press to translate between two languages, with a capability to translate between over 100 languages. Also acts as a wifi hotspot connected by 4G, and has six hours usage time in the 2200mAh battery.

PLAYED OUT: While you get free data for translation for a year, you may need to tack on additional data packages depending on your usage habits.

Acer Predator Thronos

Price: $45,000+
Distributor: Acer
www.acer.com

Reminding us a whole lot of the Emperor gaming chair that MWE Lab introduced years ago, Acer's Thronos is nine times the price. The overhead arm and keyboard tray open to let you in, close, and can then recline and massage you, seating you in the most comfortable position for your extreme gaming sessions. It's kitted with an Orion Predator 9000 PC, with three Predator Z271U G-SYNC 144Hz displays, controlled by a Predator Cestus 510 mouse and Predator Aethon 500 keyboard, while sound pumps through a set of Predator Galea 300 cans.

POWERED UP: The most single-mindedly-gaming chair that ever existed.

PLAYED OUT: You'll need an area approximately 2.5m long, by 2.5m wide, by 2.5m high, and able to support at least 325kg, to accommodate this beast – assuming you can even come up with nearly 50k to buy it in the first place. PC

AUSTRALIA'S #1 PC GAMING MAG
PC PowerPlay
SINCE 1996
CYBERPUNK 2077
WE TAKE A LOOK AT THE GAME'S RTX-POWERED GRAPHICS
PLUS! THE MIKE PONDSMITH INTERVIEW
GAMING PERIPHERAL ROUNDUP
MICE, KEYBOARDS, HEADSETS & MORE!
HANDS ON
WITH SUBMARINES IN WORLD OF WARSHIPS

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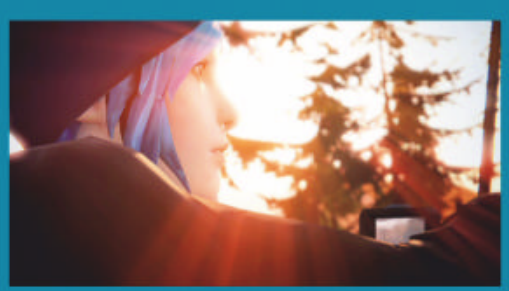
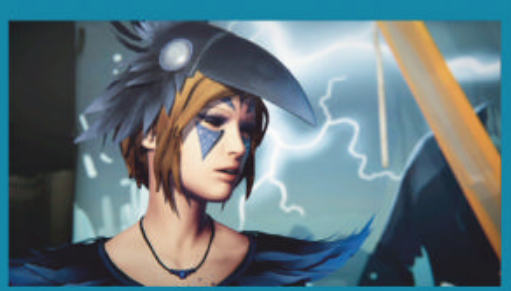
Why I love... Chloe Price

The teen so nice they gamed her twice.

RELEASED JANUARY 30, 2015 • **OUR REVIEW** 7/10
www.square-enix.com



RIGHT: Before The Storm contains a beautifully awkward performance from Chloe in a production of The Tempest.



Of all the characters in the countless games I've played over the years, it seems odd that I've grown most attached to this one. I'm old enough to remember when mobile phones had aerials, Ricky Gervais was funny, and old episodes of Top Of The Pops didn't come across as Crimewatch musicals. Why on Earth would I find myself so drawn to a fictional rebellious teenager?

After all, Chloe Price's character is drawn with rough edges. Although she's referred to in-game as a punk, her style is more a mixture of punk, grunge, and emo (or as I like to call it, "pungeo"). Despite this, when she puts on music in her car or in her bedroom, she unerringly listens to marshmallow-soft indie rock, sometimes even dancing as though she's put on a completely different song. As for Life Is Strange's prequel series Before The Storm, where Deck Nine took the reins from Dontnod, she's sometimes a caricature. Her dialogue there is peppered a little too liberally with swears, and the first episode begins with her flipping to middle fingers at a Keep Out sign she purposefully ignores. Gosh!

None of that is nearly enough to stop me thinking of her as a long-distance friend. This is partly due to Ashly Burch's phenomenal performance in Life Is Strange and all credit too to Rhianna DeVries, whose portrayal of Chloe in Before The Storm was far better than I had dared hope. These two brought Chloe to life in a way that made me feel her pain, share her laughter, and care about her future.

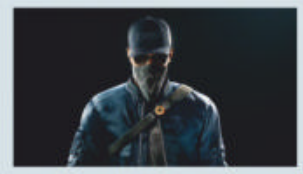
REBEL REBEL

Four lovable rule-breakers.

KAZUMA KIRYU
YAKUZA SERIES
Everybody's favourite principled, sharply-dressed gangster.

EDDIE RIGGS
BRUTAL LEGEND
Jack Black + Tim Schafer x heavy metal = rebellious awesomeness.

DJ PROFESSOR K
JET SET RADIO
DJ of a pirate radio station playing only the coolest beats.



MARCUS HOLLOWAY
WATCH DOGS 2
Out to right wrongs with guns, mad computer skills, and a sense of humour.

PRICE WAR

Vitally, Chloe is not a rebel for the sake of rebelliousness. Her story, masterfully told by narrative osmosis rather than linear lecturing, is a tragic and oddly familiar one. Once a bright student excelling at science, she lost her dad in a car crash. Around the same time, her best friend Max moved away, and failed to keep in touch over the years; something that, although not explicitly explored at length, clearly cut Chloe very deep. She ended up turning to drugs and petty crime, her feelings of pain and resentment intensifying when her mother started a new relationship with a man Chloe did not approve of.

She loves her mum, and she knows that her behaviour hurts her – but she does not, cannot, stop. This fact might seem inconsequential but, for me, it is one of the main things that makes her human.

Chloe feels like a real person to me, with all the flaws and stupid mistakes that entails. It turns out that this affection isn't a one-way street. Four years after I first met her, Chloe gave me something back.

> Vitally, Chloe is not a rebel for the sake of rebelliousness. Her story, masterfully told by narrative osmosis rather than linear lecturing, is a tragic and oddly familiar one.

My eldest daughter is currently trudging through the swamp of her early teenage years, occasionally looking back at her family to sigh at enormous volume. She's a high-functioning autistic child, and in recent years has become incredibly emotionally attached to several fictional characters.

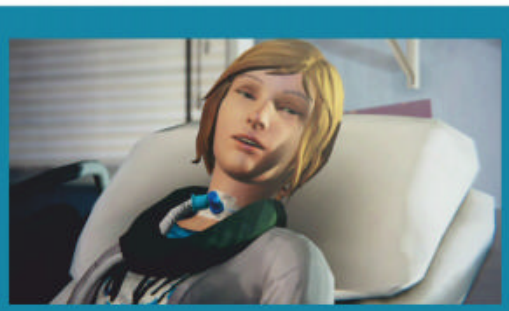
Chloe represents the first time this has happened for her in a videogame. While I don't feel attached to, say, Loki or Bucky Barnes, I do find myself caring strongly for Chloe. This has become a new patch of common ground for us to connect.

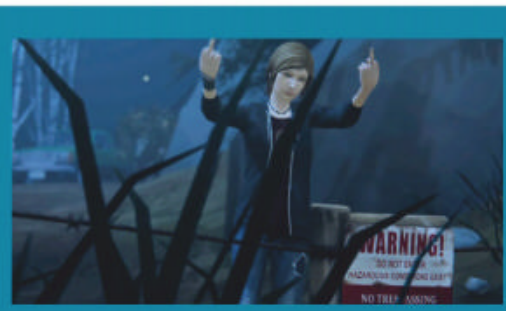
TEEN WORK

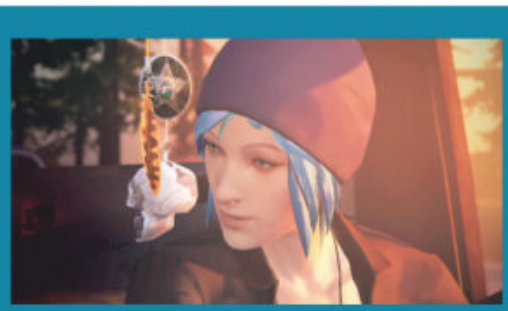
I sat with my daughter for the majority of her playthroughs of both games. It was interesting to see her rapidly grow attached, and to see that she often made the same choices I did (although I had Words following her decision to steal charity money from the principal's desk).

Fiction has to work very hard to make me cry, but I cried at the Life Is Strange ending where Chloe dies. My daughter did too, to the extent that she was still upset a few days later. Neither of us would have had this reaction if Chloe didn't feel real. For us, to all intents and purposes, she is real. We both mourned the loss of a friend, and felt deep sorrow at the fact that this friend didn't express her feelings for the woman she loved until it was too late.

But! The alternate ending sees both Max and Chloe survive (and, er, the rest of the town die). This is where the comics written by Emma Vieceli pick up, and we've begun reading these, too. We'll stick with Chloe to the end. Because, after all, what are friends for? LUKE KEMP PC







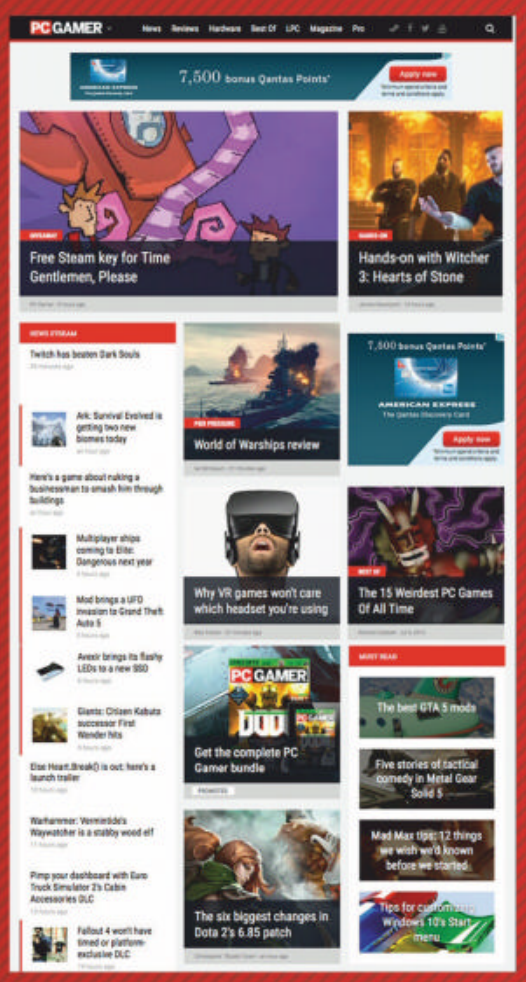
LEFT: In the alternate timeline where Chloe's dad survives, she becomes paralysed and, to my horror, even suicidal.

Next Issue

ISSUE 279 ON SALE

13 . 01 . 2020

SMARTER COOKIES ENABLED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News Reviews Hardware Best Of LPC Magazine Pro
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Apply now
Free Steam key for Time Gentlemen, Please
Hands-on with Witcher 3: Hearts of Stone
Twitch has beaten Dark Souls
Ark: Survival Evolved is getting two new biomes today
Here's a game about nuking a businessman to smash him through buildings
Multiplayer ships coming to Elite: Dangerous next year
Mod brings a UFO invasion to Grand Theft Auto 5
Avexir brings its flashy LEDs to a new SSD
Giants: Citizen Kabuto successor First Wonder hits
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